UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Washington, D.C. 20235

F/M11:PHE

JUN 3 1983

TO: Distribution

FROM: F/M11 - Joe P. Clem

SUBJECT: Amendment 11 to the Gulf of Alaska Groundfish Fishery Management Plan

Attached for your review and comment is Amendment 11 to the Gulf of Alaska Groundfish Fishery Management Plan. The document includes the final environmental impact statement and the regulatory impact review. I would appreciate receiving your response (including "no comments") by June 24, 1983.

Please contact Aven Andersen (634-7449) if you have any questions.

Attachment

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North Pacific Fishery Management Council

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May 13, 1983

Mr. William G. Gordon
Assistant Administrator for Fisheries
National Marine Fisheries Service
3300 Whitehaven Street, Page Building 2
Washington, D.C. 20235

Dear Bill:

Here is Amendment #11 to the Fishery Management Plan for Groundfish of the Gulf of Alaska and the supporting documentation. This amendment package contains:

1. The preamble and proposed rule
2. The Federal Register notice of availability
3. The Costs of Federal Rulemaking (for SF-83)
4. The Coastal Zone consistency finding
5. The Changes to the Fishery Management Plan
6. The Environmental Assessment (EA)
7. The Regulatory Impact Review/Initial Regulatory Flexibility Analysis (RIR/IRFA)

The amendment package has been reviewed by the Region and GCAK. The EA concludes that the management measures contained in Amendment #11 will not significantly affect the quality of the human environment and that an environmental impact statement is not required. The RIR/IRFA concludes that the management measures are not significant under Executive Order 12291 but are significant under the Regulatory Flexibility Act.

Amendment #11 will raise the optimum yield for pollock in the Central Regulatory area from 95,200 mt to 143,000 mt; revise the sablefish management regime by dividing the Yakutat district, lowering the sablefish OY from 12,300 mt to 8,230 mt - 9,480 mt, and specifying a Gulf-wide sablefish management objective; revise the DAH management procedures by establishing a framework for the annual determination of DAH, eliminating the separate specification of DNP, and by giving authority to the Regional Director to apportion reserves and DAH as the need arises; protect resources by delegating authority to the Regional Director to impose time and/or area restrictions on the foreign nations' fisheries for conservation reasons; and require domestic fishermen who intend to land groundfish outside state and federal waters of Alaska to advise management agencies by radio or telephone before leaving Alaska waters.

33D/X1

Amendment #11 is fairly complex and it has taken considerable time and effort by Regional and Council staff to prepare this package. It addresses some of the most pressing problems in this FMP, particularly by frameworking the annual determination of DAH.

If you have any questions on the enclosed material, please do not hesitate to contact me.

Sincerely,

Jim H. Branson
Executive Director

Enclosures (50)

cc: Robert W. McVey (5)
Patrick J. Travers (3)

JP

33D/X2

Billing Code 3510.22

DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
50 CFR Parts 611 and 672
(Docket No.)
Foreign Fishing, Groundfish of the Gulf of Alaska

AGENCY: National Oceanic and Atmospheric Administration (NOAA), Commerce

ACTION: Proposed rule

SUMMARY: NOAA issues this proposed rule to implement Amendment 11 to the Fishery Management Plan for Groundfish of the Gulf of Alaska. Implementation of measures contained in this amendment is necessary for conservation and management of the fishery. These measures are intended to provide for fuller utilization of certain available groundfish species, mitigate chances of overfishing local stocks, and enhance the data base used for inseason management decisions.

DATE: Written comments must be received on or before _____, 1983.

ADDRESSES: Comments should be addressed to Robert W. McVey, Director, Alaska Region, National Marine Fisheries Service, P.O. Box 1668, Juneau, Alaska 99802. Individual copies of the amendment, the environmental assessment, and the regulatory impact review may be obtained by contacting the North Pacific Fishery Management Council, P.O. Box 3136DT, Anchorage, Alaska 99510, 907-274-4563.

FOR FURTHER INFORMATION CONTACT: Ronald J. Berg, Fisheries Management Biologist, telephone (907) 586-7230.

SUPPLEMENTARY INFORMATION: On February 24, 1978, the Assistant Administrator for Fisheries, NOAA (Assistant Administrator) approved the fishery management plan (FMP) for the groundfish fishery of the Gulf of Alaska. The FMP governs foreign and domestic fishing for groundfish in the U.S. Fishery Conservation Zone (FCZ) in the Gulf of Alaska between 132°40 W. longitude (Dixon Entrance) and 170° W. longitude. The FMP was originally published in the FEDERAL

REGISTER on April 21, 1978 (43 FR 17242). Since then it has been amended ten times. Amendment 11, which is the subject of this action, contains five parts, was approved by the North Pacific Fishery Management Council (Council) at its March 26-27, May 19-20, and July 21-22, 1982 meetings.

A description of, and the reasons for, each part of Amendment 11 follows:

1. The optimum yield for pollock in the Central Regulatory area would be increased from 95,200 mt to 143,000 mt. The OY increase would accommodate the rapidly expanding domestic fisheries in the Central Regulatory area that are targeting on pollock and delivering to foreign processing vessels at sea in joint ventures. This fishery is capitalizing on pollock that concentrate during early spring in Shelikof Strait between Kodiak Island and the Alaska Peninsula. Joint venture harvests of pollock in the area have increased from 1,900 mt in 1980, to 17,000 mt in 1981, to more than 77,000 mt in 1982. Commitments from foreign purchasers of U.S. caught groundfish could result in a harvest in excess of 100,000 mt in 1983.

The new OY is at the midpoint of the maximum sustainable yield (MSY) range. MSY was derived from estimates of the total exploitable biomass.

The total exploitable biomass of pollock has been estimated for the Gulf of Alaska from results of trawl surveys conducted by the National Marine Fisheries Service to be a range of 1,041,000-2,081,000 mt. On the basis of the distribution of pollock, the total exploitable biomass in the Central Regulatory Area is estimated to be 595,000-1,191,000 mt. Using a relationship prescribed by the FMP, MSY in the Central Regulatory Area is calculated to a range of 95,200-191,000 mt. The initial OY established by the FMP was set conservatively at the low end of the MSY range. A preliminary cohort analysis of pollock catch indicates that the exploitable biomass in the Central Regulatory Area is higher than when MSY was calculated. The Council, therefore, has determined that the proposed OY is appropriate.

Based on testimony to the Council, the 143,000 mt OY would be apportioned among domestic annual processing (DAP), joint venture processing (JVP),

reserves and the total allowable level of foreign fishing (TALFF) as follows: DAP = 5,380 mt, JVP = 104,020, Reserves = 28,600 mt, and TALFF = 5,000.

2(a). The Yakutat district of the Eastern Regulatory area would be divided into two districts -- East Yakutat (137°-140° W. longitude) and West Yakutat (140°-147°W. longitude) for purposes of better managing sablefish. Under the current management regime a single OY for sablefish, and its DAP, JVP and TALFF components, are established for all of the Yakutat district, which is between 137° and 147° W. longitudes. Foreign fishing, however, is restricted in the Yakutat district to the area west of 140° W. longitude. Foreign fishermen, then, can attempt to harvest the entire allocation from an area smaller than the allocation area, which could result in overfishing of local stocks. Domestic fisherman may also attempt to harvest the entire DAP and JVP amounts of sablefish from a smaller area. By dividing the Yakutat district into two districts and apportioning the OY for sablefish between the two districts fishermen would be encouraged to extend their efforts over a wider area. Local stocks of sablefish would be managed more conservatively.

Because foreign fishing is restricted to west of 140° W. longitude, the data base used to analyze the condition of stocks has changed. Foreign catch reporting in the new West Yakutat district would be consistent with presently permissible foreign fishing areas.

2(b). The overall optimum yield for sablefish in the 3-200 mile fishery conservation zone would be reduced from 12,300 mt to a range of 7,730-8,980 mt and apportioned among the regulatory areas/districts. The condition of the sablefish resource is generally depressed throughout the Gulf of Alaska as evidenced by analyses of foreign and domestic catch data and magnitudes of recent catches compared to those of previous years. Whereas sablefish were once so abundant that total annual catches in excess of 20,000 metric tons were possible (the largest total catch was 36,505 mt in 1972), total catches since 1978 have been comparatively small, ranging from 7,461 mt in 1982 to 9,763 mt in 1981.

The Council has determined that sablefish stocks should be managed to allow for faster rebuilding than would occur if they were harvested at the

equilibrium yield (EY) level, estimated to be a range of 10,965--12,630 mt in the Gulf of Alaska (Table 1). OY is set equal to ABC, which is approximately equal to 75 percent of the EY, and is apportioned among the regulatory areas/ districts of the Gulf of Alaska in proportion to the most current estimate of the distribution of EY.

Table 1. Equilibrium Yields and optimum yields (= ABC's) in the regulatory areas and districts of the Gulf of Alaska

	REGULATORY AREAS				DISTRICTS		
	Western	Central	West Yakutat	East Yakutat	Southeast		Total
EY(mt)	2,225	4,075	2,240	1,135-1,510	1,290-2,580		10,965-12,630
					Outside	Inside	
OY(mt)	1,670	3,060	1,680	850-1,135	470-1,435	500	8,230-9,480[1/]

1/ Total OY includes 500 mt allocated to the Southeast Inside district which is State of Alaska waters and managed by the State.

3(a). A framework procedure would be established to allow the Regional Director to determine annually the DAP and JVP components of the domestic annual harvest (DAH) for each species OY. The Council is presently able to adjust the DAP and JVP components of DAH only by amending the FMP, a process that is too lengthy to be responsive to the needs of the fishing industry. Future specifications of DAP's and JVP's necessary to support domestic operations and joint ventures, respectively, are expected to change but the amount of change is unpredictable at this time.

The Council adopted the framework procedure to assure that sufficient quantities of groundfish would be available to accommodate the needs of the U.S. industry. Under the proposed framework procedure, initial DAP and JVP amounts would equal the amounts harvested by domestic fishermen during the previous fishing year plus any additional amounts that are necessary to satisfy expected need for the new fishing year. The Regional Director, upon recommendation from the Council, would publish a rule-related notice in the FEDERAL REGISTER that would propose apportionments of each OY among DAP, JVP,

and TALFF as soon as practicable after October 1. Based on comments received, he would publish a second rule related notice of final apportionment figures before January 1 of each new fishing year. Hence, planning by domestic and foreign fisherman would be enhanced on the basis of timely apportionments.

3(b). The domestic non-processed (DNP) component of DAH that was apportioned for bait and personal consumption would be eliminated and combined with DAP. Amounts specified as DNP that were used for bait and personal consumption are not specifically monitored. DNP amounts are presently designated only for Pacific cod and "other species". Rather than continue to specify useless DNP amounts for those species, the numerical amounts would be combined with DAP specifications.

3(c). The reserve and surplus DAH apportionment procedures would be modified to allow the Regional Director to reapportion reserves and surplus DAH to TALFF on the dates already specified in current regulations and on any other dates he determines necessary. Current regulations provide for the Regional Director to reapportion to DAH any amounts of the reserves on three specified dates or at any other time considered necessary. Surplus DAH may be reapportioned to TALFF only after August 1. Reserves may be reapportioned to TALFF only after April 1, June 1, and August 1 and then only in certain amounts. The current limitations in the timing of reapportionments of those amounts of groundfish considered surplus to U.S. fishing needs has constrained full utilization of available groundfish. Under this proposed measure the Regional Director may reapportion to TALFF any amount of reserves and DAH, which are surplus to U.S. fishing needs for the remainder of the fishing year, as soon as practicable after April 1, June 1, and August 1, or on any other date considered necessary.

If a reapportionment is made on dates other than those scheduled, and immediate action is necessary to prevent the closure of a fishery, the Regional Director could act without affording a prior opportunity for public comment. Public comments on the necessity for, and extent of the reapportionment would then be submitted for a period of 15 days after the effective date of such action.

4. The Regional Director would be delegated the authority to impose time and/or area restrictions on foreign nations for conservation reasons. The FMP and current implementing regulations currently provide to the Regional Director the authority to impose time and/or area restrictions on domestic fisherman by field order for conservation reasons. This amendment would provide the same authority to the Regional Director to restrict foreign fisheries in order to protect stocks of groundfish or Pacific halibut.

The rationale for this authority follows directly from objectives 1 and 2 of the FMP management regime, "1) Rationale and optimal use, in both the biological and socioecomomic sense, of the region's fishery resources as a whole; 2) Protection of the Pacific halibut resource, which for decades has supported the only significant groundfish fishery in the region."

In determining the necessity of an in-season time and/or area restriction, the Regional Director would consider in-season fishery and observer-reported data that relate to one or more of the following conditions:

(i) the effect of overall fishing effort within a regulatory area;
(ii) catch per unit effort and rate of harvest;
(iii) relative abundance of stocks within an area;
(iv) amount of Pacific halibut being caught;
(v) condition of groundfish stocks within the area; and
(vi) any other factors relevant to the conservation and management of the groundfish, Pacific halibut resources.

5. Domestic fishermen who intend to land groundfish outside State and Federal waters of Alaska would be required to advise management agencies by radio or telephone before leaving Alaska waters. The Alaska Department of Fish and Game (ADF&G) and the National Marine Fisheries Service, Alaska Region, monitor the domestic groundfish fishery and have a need for timely receipt and analysis of catch data to prevent domestic quotas of groundfish from being exceeded, which could result in biological overfishing of groundfish stocks.

ADF&G has reported a number of instances of large catcher-processor vessels fishing in State and Federal waters in the Gulf of Alaska that were not

properly documented, did not report Gulf of Alaska groundfish catches landed in Washington, or reported landings in Washington too late to be useful for in-season management decisions.

The Alaska Region has an additional need for timely catch data on which to base rational decisions relating to the apportionment of reserves to DAP, JVP, and TALFF in order to promote full utilization of available groundfish. Large domestic catcher-processor vessels are capable of harvesting substantial portions of groundfish quotas for delivery outside Alaska. Knowledge of their departure and the follow up of their reporting of catches at ports outside Alaska is essential to allow successful in-season groundfish management.

Classification

Section 304(a)(1)(C)(ii) of the Magnuson Act, as amended by P.L. 97-453, requires the Secretary of Commerce (Secretary) to publish regulations proposed by a Council within 30 days of receipt of the amendment and regulations. At this time the Secretary has not determined that the amendment these rules would implement is consistent with the national standards, other provisions of the Magnuson Act, and other applicable law. The Secretary, in making that determination, will take into account the data, views, and comments received during the comment period.

The Council prepared an environmental assessment for this amendment and concluded that there will be no significant impact on the environment as a result of this rule. You may obtain a copy of the environmental assessment from the Council at the address listed above.

Implementation of this rule will not constitute an action that "may affect" endangered or threatened species or their habitat within the meaning of regulations implementing Section 7 of the Endangered Species Act of 1973.

The NOAA Administrator determined that this proposed rule is not a "major rule" requiring a regulatory impact analysis under Executive Order 12291.

The Assistant Administrator determined, however, that approval and implementation of this rule would be carried out in a manner that is consistent to the maximum extent practicable with the Alaska Coastal Management Program, as required by section 307(c) of the Coastal Zone Management Act of 1972 and its implementing regulation at 15 CFR Part 930, Subpart C.

This proposed rule does not contain a collection of information requirement within the meaning of the Paperwork Reduction Act.

The Administrator has also determined that the proposed rule would have a significant economic impact on a substantial number of small entities, and thus requires preparation of a regulatory flexibility analysis under 5 U.S.C. Sections 603 and 604 of the Regulatory Flexibility Act. These determinations by the Administrator are based on an analysis contained in the Regulatory Impact Review/Initial Regulatory Flexibility Analysis (RIR/IRFA) that was prepared for this proposed rule. The following is a summary of the RIR/IRFA.

Increasing the pollock OY to 143,000 mt is superior to maintaining it at its current level of 95,200 mt. Ex-vessel revenues to twenty-five U.S. fishermen participating in joint ventures in 1983 could be about $14.9 million, which exceeds the loss to the U.S. government in foreign fees not received of between $158,000 and $1 million due to reduction in TALFF.

Reducing the sablefish OY to 7,730-8,980 mt in Federal waters is superior to maintaining it at its current level of 12,300 mt although costs initially are greater than benefits. Losses in foreign fees could be about $481,690 and possible reductions in ex-vessel revenues in domestic operations and joint ventures could be about $4 million and $38,000, respectively. As stocks improve, however, and if catches were to return to the upper level of the MSY range, U.S. fishermen could receive about $47 million.

Dividing the Yakutat district into two management districts for purposes of better managing sablefish is superior to maintaining it as a single management area. Although fishermen's operating costs in terms of fuel

and travel time would increase (e.g. by $400 and 33 hours per boat) as they travel farther to harvest sablefish, benefits of better management of sablefish stocks, which have a potential ex-vessel value of between $1.9 million and $3.5 million, exceed the costs. Under the alternative of maintaining the Yakutat district as a single area, the potential for overfishing local stocks increases, which would be a cost to the extent that sablefish stocks as well as potential revenues would be adversely impacted.

Establishing a procedure that allows the Regional Director to apportion annually each groundfish species OY to DAP, JVP reserve, and TALFF is superior to the present process of accomplishing the apportions by plan amendments. This measure would facilitate planning by the U.S. fishing industry, which would benefit from certainty as to the availability of fish stocks. The alternative to continue adjusting DAH components by plan amendments creates delays, which increases uncertainty for the industry.

Requiring fishermen to notify management agencies of their intended departure before leaving Federal or State waters to land fish outside Alaska, in addition to the present requirement that they report those catches after landing them, is superior to the existing requirement that they just report the catches. The only costs incurred by these fishermen are their time and nominal charge to notify a management agency through the marine operator. As a result of this requirement, management decisions, including reserve apportionments and in-season time and area closures for conservation reasons, would be based on the best available information, which contributes to a fishery that has a potential ex-vessel value of between $15 million and $324.4 million.

List of Subjects

50 CFR Part 611

Fish, Fisheries, Foreign Relations, Reporting Requirements

50 CFR Part 672

Fish, Fisheries, Reporting Requirements

Dated:

Carmen J. Blondin Acting
Assistant Administrator for Fisheries
Resource Management
National Marine Fisheries Service

For reasons set out in the preamble, 50 CFR Part 611 is proposed to be amended as follows:

1. The authority section for Part 611 reads as follows:

AUTHORITY: 16 U.S.C. 1801 et. seq., unless otherwise noted.

2. In § 611.92, figure 1 is replaced by a new figure 1, paragraphs C(1)(i) and (c)(1)(ii) are revised and a new paragraph (g) is added as follows:

§ 611.92 Gulf of Alaska Groundfish Fishery

(a) * * *

(1) * * *

[Insert Figure 1]

* * * * *

(C) * * *

(1) * * *

(i) As soon as practicable after October 1 of each year, the Secretary after consultation with the Council, shall publish a notice in the FEDERAL REGISTER, stating preliminary initial apportionments of optimum yields (OY) for each species among DAP, JVP, reserves, and TALFF. The preliminary specifications of DAP and JVP will be the amounts harvested during the previous years plus any additional amounts the Secretary finds are necessary to meet the needs of the U.S. industry. These additional amounts will reflect as accurately as possible the projected increases in U.S. processing and harvesting during the coming year. Based on comments received, the Secretary will, by January 1 of the new fishing year, publish a second notice in the FEDERAL REGISTER, which will show the final initial apportionment of each species' OY among DAP, JVP, reserve, and TALFF for the new fishing year.

Species listed in paragraph (b)(1) and Table I of this section as "unallocated species," or species for which the TALFF is zero, will be treated as prohibited species in accordance with §611.13.

(ii) * * *

(A) * * *

(1) As soon as practicable after April 1, June 1, and August 1 and on such other dates as he determines necessary, the Secretary, after consultation with the Council, may reapportion to TALFF, part or all of the reserve amounts of each species in accordance with paragraphs (c)(1)(ii)(C) of this section.

(2) * * *

(B) Reapportionment of Surplus DAH to TALFF. As soon as practicable after April 1, June 1 and August 1, and as such other dates as he determines necessary, the Secretary, after consultation with the Council, may reapportion to TALFF any parts of the DAH that he determines will not be harvested by United States fisherman during the remainder of the year in accordance with paragraph (c)(1)(ii)(C) of this section.

(2) * * *

(B) Reapportionment of Surplus DAH to TALFF. As soon as practicable after April 1, June 1 and August 1, and on such other dates as he determines necessary, the Secretary, after consultation with the Council, shall reapportion to TALFF any parts of the DAH that he determines will not be harvested by United States fishermen during the remainder of the year in accordance with paragraph (c)(1)(ii)(C) of this section.

(C) * * *

(3) Allocation of Increases and Decreases in DAH Between DAP and JVP. The Secretary shall allocate any increases and decreases in DAH amounts resulting from reapportionments under paragraphs (c)(1)(ii)(A) and (B) of this section between the DAP and JVP components of DAH.

(4) * * *

(i) * * *

[Remove "15" days and insert "five days."]

(5) * * *

(iii) The distribution of amounts apportioned to or from DAH between DAP and JVP.

* * * * *

(g) Time and Area Closures

(1) Field Orders

(i) Field orders issued by the Secretary under this Part shall include the following information: (A) a description of the area to be opened or closed; (B) the effective date and any termination date of such opening or closure; and (C) the reason for the opening or closure.

(ii) No field order issued under this section may take effect until: (A) it has been filed for public inspection with the Office of the Federal Register; (B) the foreign nations concerned and the designated representatives for the affected foreign fishing vessels are notified; if practicable, notification shall be given to foreign nations concerned and to the designated representatives for the affected foreign fishing vessels at least 48 hours before the field order is to be effective; and (C) the public has been offered the opportunity to comment upon the Secretary's proposed findings and order of

modification for a period of at least thirty (30) days, unless the Secretary finds that such prior opportunity for public comment would adversely affect the conservation of groundfish or unallocated species.

(iii) Determinations. Any adjustment under this paragraph shall be based on a determination by the Regional Director that: (A) the condition of any groundfish or Pacific halibut stock in any portion of the Gulf of Alaska is substantially different from the condition anticipated at the beginning of the fishing year; and (B) such differences reasonably support the need for in-season conservation measures to protect groundfish or Pacific halibut stocks.

(iv) Data. Fishery and observer data reported in-season that relate to one or more of the following factors may be considered in making this determination: (A) the effect of overall fishing effort within a regulatory area; (B) catch per unit of effort and rate of harvest; (C) relative abundance of stocks within the area; (D) amount of Pacific halibut being caught; (E) condition of stocks within the area; and (F) any other factors relevant to the conservation and management of the groundfish or halibut resource.

(v) Procedure. (A) The Secretary shall publish proposed adjustments in the FEDERAL REGISTER for public comment before they are made final, unless the Secretary finds for good cause that such notice and public procedure is impracticable, unnecessary, or contrary to the public interest. (B) If the Secretary decides, for good cause, that an adjustment is to be made without affording a prior opportunity for public comment, public comments on the necessity for, and extent of, the adjustment shall be received by the Regional Director for a period of 15 days after the effective date of the field order. (Address: Director, Alaska Region, National Marine Fisheries, P.O. Box 1668, Juneau, Alaska 99802.)

* * * * *

Part 672 GROUNDFISH OF THE GULF OF ALASKA

3. The Authority citation for Part 672 reads as follows:

AUTHORITY: 16 U.S.C. 1801 et. seq.

In section 672.2, the definition of "regulatory district" is revised as follows:

4. § 672.2 Definitions

* * * * *

Regulatory district means any of four districts of the Eastern Regulatory area as follows:

(1) Southeast Inside district - all waters of the territorial sea (shoreward of three miles) east of 137°00' W. longitude and north of 54°30' W. longitude.

(2) Southeast Outside district - all waters of the FCZ east of 137°00' W. longitude.

(3) East Yakutat district - all waters between 137°00'and 140°00' W. longitudes, and

(4) West Yakutat district - all waters between 140° and 147° W. longitudes.

* * * * *

5. In Section 672.5 paragraph (a)(2) is redesignated as (a)(2)(ii) and a new paragraph (a)(2)(i) is added as follows:

§ 675.5 Reporting Requirements

(a) * * *

(2) * * *

(i) The operator of any fishing vessel regulated under this part who intends to deliver groundfish at a port of landing outside the State of Alaska, shall notify any officer of the Alaska Department of Fish and Game or the Director, Alaska Region, National Marine Fisheries Service at 907-586-7221, of his expected or actual, date of departure from Alaska waters.

(ii) * * *

* * * * *

6. In Section 672.20, paragraph (c)(3) is redesignated (c)(4), a new paragraph (c)(3) is added, and paragraphs (a), (c)(1)(i), (c)(2), and (c)(4)(iii) are revised as follows:

(a) Optimum Yield, Domestic Annual Harvest, Total Allowable Level of Foreign Fishing, and Reserves

(1) The initial annual specifications of optimum yield (OY), reserves, estimates of domestic annual harvest (DAH), domestic annual processing (DAP), joint venture processing (JVP), and the total allowable level of foreign fishing (TALFF) for species regulated under this Part are set forth in Table 1. The OY specifications remain in effect from year to year. The other specifications change from year to year in accordance with the procedure presented in paragraph (a)(2) of this Section.

(2) As soon as practicable after October 1 of each year, the Secretary of Commerce, after consultation with the Council, shall publish a notice in the FEDERAL REGISTER proposing the initial apportionments for the following year of the OYs specified in Table 1 among DAP, JVP, reserves, and TALFF. The Secretary shall receive public comments on these proposed apportionments. In light of these comments, the Secretary shall publish in the FEDERAL REGISTER by January 1 of each year a notice prescribing the initial apportionments of OY among DAP, reserves, and TALFF for that year. These amounts shall replace the corresponding amounts for the previous year in Table 1, a revised version of which shall be published as part of the notice.

(3) When the combined catch by foreign and U.S. vessels reaches the OY amount for a species or species category, further fishing for all species will be prohibited in the applicable regulatory area or district for the remainder of the calendar year, except that fishing for sablefish by fishing vessels of the United States using longline gear will not be prohibited unless the OY for sablefish in the fishing area or district has been reached.

(c) * * *

(1) * * *

(i) In accordance with paragraphs (c)(4) of this section and as soon as practicable after April 1, June 1, and August 1 and on such other dates as he determines necessary, the Regional Director, after consultation with the Council, may reapportion to TALFF, part or all of the reserves specified in Table 1.

* * * * *

(2) Apportionment of Surplus DAH to TALFF. In accordance with paragraph (c)(4) of this section and as soon as practicable after April 1, June 1 and August 1, and as such other dates as he determines necessary, the Regional Director, after consultation with the Council may apportion to TALFF, any parts of the DAH amounts specified in Table 1 that he determines will not be harvested by United States fisherman during the remainder of the year.

(3) Allocation of Increases and Decreases in DAH Among DAP and JVP. The Regional Director shall allocate any increases and decreases in DAH amounts resulting from apportionments under paragraphs (c)(1)(i) and (c)(2) of this section among the DAP and JVP components of DAH.

(4) * * *

(iii) Allocation of Increases and Decreases in DAH Between DAP and JVP. The Regional Director shall allocate any increases or decreases in DAH amounts resulting from apportionments under paragraph (c)(1) and (c)(2) of this section between DAP and JVP.

* * * * *

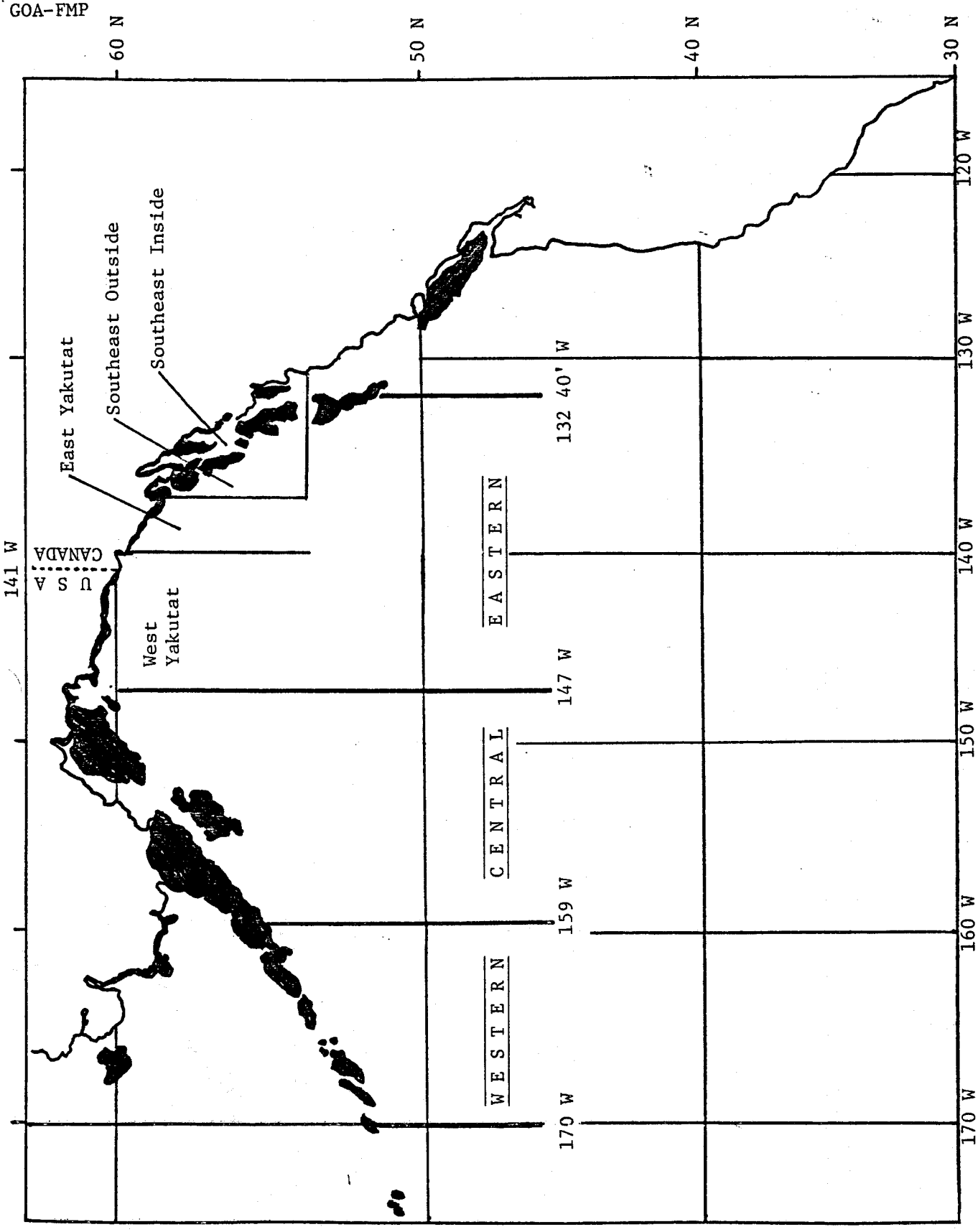

Figure 1 -- Regulatory Areas of the Gulf of Alaska (FMP)

Billing Code 3510.22

DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

50 CFR Part 611 and 675

Foreign and Domestic Fishing: Groundfish of the Gulf of Alaska

AGENCY: National Oceanic and Atmospheric Administration (NOAA), Commerce

ACTION: Notice of availability of an amendment to a fishery management plan and request for comments.

SUMMARY: NOAA issues this notice that the North Pacific Fishery Management Council has submitted an amendment (Amendment 11) to the Fishery Management Plan for the Groundfish Fishery in the Gulf of Alaska for Secretarial review and is requesting comments from the public. Copies of the amendment may be obtained from the address below.

DATE: Comments on the plan amendment should be submitted on or before (enter date 75 days after filing with the FEDERAL REGISTER).

ADDRESS: All comments should be sent to Robert W. McVey, Director, Alaska Region, NMFS, P.O. Box 1668, Juneau, Alaska 99802.

Copies of the Amendment are available upon request from the North Pacific Fishery Management Council, P.O. Box 103136, Anchorage, Alaska 99510.

FOR FURTHER INFORMATION, CONTACT: Jeffrey J. Povolny, North Pacific Fishery Management Council Groundfish Plan Coordinator, Telephone: (907) 274-4563.

SUPPLEMENTARY INFORMATION: The Magnuson Fishery Conservation and Management Act (16 U.S.C. 1801 et seq.) requires that each regional fishery management council submit any fishery management plan or plan amendment it prepares to the Secretary of Commerce (Secretary) for review and approval or disapproval. This act also requires that the Secretary, upon reviewing the plan or amendment, must immediately publish a notice that the plan or amendment is available for public review and comment. The Secretary will consider the public comments in determining whether to approve the plan or plan amendment.

33D/EE3

Amendment 11 proposes measures for managing the foreign groundfish fishery in the Gulf of Alaska. Regulations proposed by the Council and based on this amendment are scheduled to be published within 30 days. (16 U.S.C. 1801 et seq.)

DATE: _____

_____
Acting Chief, Operations Coordination Group
National Marine Fisheries Service

33D/EE4

Costs of Federal Rulemaking
Amendment 11 to the Fishery Management Plan for the
Groundfish of the Gulf of Alaska

DEVELOPMENT COSTS

North Pacific Fishery Management Council

Council Time	$25,000
Public Hearings	5,000
Team Meetings	30,000
Direct Staff	10,000
Supervisory & Support Staff	5,000
Mailing & Printing	2,000
Communications	1,000
Supplies	500
Travel	1,000
TOTAL	$79,500

National Marine Fisheries Service

Prorated participation at 3 Council Meetings	$2,550
Staff Work (Ten Weeks) 1/	7,060
TOTAL	$9,610

Alaska General Counsel

Prorated participation at 3 Council Meetings	$1,200
Staff Work (One Week)	706
TOTAL	$1,906

ENFORCEMENT COSTS

U.S. Coast Guard	-0-
NMFS	-0-
TOTAL	-0-

TOTAL COSTS

Development	$91,016
Enforcement	-0-
TOTAL	$91,016

1/ Costs are calculated at $17.65 per hour, including COLA.

STATE OF ALASKA

BILL SHEFFIELD, GOVERNOR

OFFICE OF THE GOVERNOR

DIVISION OF POLICY DEVELOPMENT AND PLANNING
GOVERNMENTAL COORDINATION UNIT

POUCH AW (MS - 0165)
JUNEAU, ALASKA 99811
PHONE: (907) 465-3562

March 31, 1983

Mr. Robert McVey
Director, Alaska Region
U.S. Department of Commerce
National Oceanic and
Atmospheric Administration
National Marine Fisheries Service
P.O. Box 1668
Juneau, AK 99802

In reply, refer to:
Division of Governmental
Coordination, Office of
Management and Budget

Dear Mr. McVey:

The Division of Policy Development and Planning (DPDP) has reviewed the North Pacific Fishery Management Council's determination of consistency with the Alaska Coastal Management Program (ACMP) for the proposed rulemaking to implement Amendment 11 to the Fishery Management Plan for the groundfish fishery of the Gulf of Alaska.

The State was given authority under the Coastal Zone Management Act of 1972 to review direct federal activities for consistency with the Alaska Coastal Management Program. Fisheries management plans developed by the Council are considered to be direct federal actions which may affect the coastal zone and therefore are subject to consistency review.

In reviewing the proposed rulemaking, the Division concurs with your determination and finds that the proposed rulemaking is consistent with the provisions of the ACMP.

If you have any questions regarding this letter, please contact:

Wendy Wolf
State-Federal Coordinator
Pouch AW
Juneau, AK 99811
Phone # 465-3562

Sincerely,

Jay Hogan
Director

cc: William C. Delk, MOA
Merlin Wibbenmeyer, DNR
Linda Freed, Kodiak Island Borough
Beth A. Stewart, Commercial Fisheries Entry Commission
Jim Robison, Labor
Bob Martin, DEC
John E. Morris, City of Hydaburg
Bill Paulick, CED

NORTH PACIFIC FISHERY MANAGEMENT COUNCIL

FISHERY MANAGEMENT PLAN FOR THE

GULF OF ALASKA GROUNDFISH

AMENDMENT #11

Changes to the FMP

I. SUMMARY

Amendment #11 was approved by the Council on July 22, 1982. The Amendment makes the following changes to the FMP:

1. The pollock Optimum Yield (OY) in the Central Regulatory Area is increased from 95,200 mt to 143,000 mt.

2. Sablefish in the Gulf of Alaska will be managed Gulf of Alaska-wide to benefit the domestic fishery. The Yakutat district is divided into two sablefish management districts: West Yakutat and East Yakutat.

3. The sablefish OY will equal the ABC. ABC is set at approximately 75% of the EY to promote stock rebuilding. The Gulf of Alaska-wide OY is expressed as a range of 8,230 mt to 9,480 mt, of which 500 mt is in the internal waters of Southeast Alaska. The OY is distributed among the regulatory areas and districts in proportion to the most current estimate of the distribution of OY.

4. The annual determination of DAH will be based on the previous year's domestic catch, plus additional amounts projected to be taken by United States fishermen. The Regional Director will update the DAH figures annually by issuing notices in the FEDERAL REGISTER and accepting public comments. The Regional Director can reapportion reserves and unneeded DAH at any time of the year.

5. Domestic non-processed harvest (DNP) is eliminated as a component of DAH.

6. The Regional Director may issue field orders to adjust time and/or area restrictions on foreign fisheries for conservation reasons.

7. Domestic vessels must report their catch or advise the management agencies in Alaska by radio or telephone of their departure before leaving the Alaskan FCZ or state waters to land fish outside Alaska.

II. CHANGES TO RELEVANT SECTIONS OF THE FMP

1. Replace Tables 58, 61, 61-a, 62, 63, 64, and 66 with revised Tables attached here.

2. Add Table 58a, page 4-22b; and Table 58b, page 4-22d.

3. Add Figure 4-1, page 4-22a; and Figure 4-2, page 4-22c.

4. Revise the following figures in the FMP Summary:

p. S-1, Paragraph 6. Change the second sentence to read "The total yield is expected to be as much as 395,625 mt." Delete paragraph 7.

p. S-2. Change "48,000 mt (1974)." to "11,000 mt (1981)."

5. Revise the definitions on page 2-5 as follows:

b. DAH, expected domestic annual harvest is the estimated portion of the U.S. groundfish harvest which will be utilized by domestic processors and which will enter non-processed fish markets (DAP), and the estimated portion, if any, delivered to foreign processors (JVP) which are permitted to receive U.S. harvested groundfish in the fishery conservation zone.

c. DAP is the estimated portion of DAH that is expected to be processed by U.S. processors. It also includes estimates of the quantities and species of groundfish that will enter non-processed fish markets such as those for bait in crab and longline fisheries.

d. JVP is the estimated portion of DAH that is in excess of the capacity and intent of U.S. processors to utilize, or for which actual domestic markets are not available, that is expected to be delivered to foreign processors in the fishery conservation zone.

The DAP and JVP components of the DAH are dynamic and require periodic reassessment to assure that DAH remains realistic and based on the best available, current information. Accordingly, DAH values will be determined annually by a framework procedure to assure that they reflect the actual extent to which groundfish will be harvested and processed by the U.S. industry. Under the framework procedure, initial DAP and JVP amounts will equal the amounts harvested by U.S. fishermen during the previous fishing year plus any amounts additional that are necessary to satisfy expected need for the new fishing year. The Regional Director, upon recommendation from the Council, will publish a rule-related notice in the FEDERAL REGISTER that will propose apportionments of each OY among DAP, JVP, and TALFF as soon as practicable after October 1. Based on comment received he will publish a second rule-related notice of final apportionment figures before January 1 of each new fishing year. Hence, planning by domestic and foreign fishermen would be enhanced on the basis of timely apportionments.

6. In Section 3.1, page 3-1, "Areas and Stocks Involved," replace first paragraph with the following two paragraphs:

The Gulf of Alaska is defined to include that portion of the North Pacific Ocean exclusive of the Bering Sea, between the eastern Aleutian Islands at 170°W. longitude and Dixon Entrance at 132°40'W. longitude and includes the following regulatory areas: Western, Central and Eastern (Figure 1). For purposes of managing sablefish, the Eastern Regulatory Area is divided into four districts: West Yakutat (140°W. to 147°W.),

East Yakutat (137°W. to 140°W.), Southeast Outside (all waters of the FCZ east of 137°W. longitude), and Southeast Inside (all waters of the territorial sea east of 137°W. longitude). This division to protect localized sablefish stocks and is necessary to preclude overexploitation with the Eastern Regulatory Area.

Figure 1a indicates regulatory areas as defined by INPFC consisting of Shumagin, Chirikof, Kodiak, Yakutat and Southeastern. Total area of Continental Shelf in the Gulf of Alaska is about 160,000 square km, which is more than the shelf area in the Washington-California region but less than 25% of that in the eastern Bering Sea. Between Canada and Cape Spencer in the Gulf of Alaska the Continental Shelf is narrow and rough. North and west of Cape Spencer it is broader and more suitable for trawling. As it curves westerly from Cape Spencer towards Kodiak Island it extends some 50 miles seaward, making it the most extensive shelf area south of the Bering Sea. West of Kodiak Island and proceeding along the Alaska Peninsula toward the Aleutian Islands, the shelf gradually becomes narrow and rough again.

7. In Section 4.7.1.1, page 4-17, "Alaska Pollock, Maximum Sustainable Yield (MSY)," eliminate the entire section and replace it with the following:

Maximum sustained yield has been estimated for the Gulf of Alaska from results of trawl surveys conducted by the National Marine Fisheries Service during 1973-77. These surveys indicated the total exploitable biomass in the Gulf of Alaska to be 1,041,000 - 2,081,000 mt, using the relationship:

$$\bar{P}w = \frac{CPUE \cdot A}{c \cdot \bar{a}}$$

where Pw = exploitable biomass
A = total area
c = catchability coefficient
a = average bottom area covered by the trawl

For pollock, "c" has not been empirically determined but is estimated to be between 0.5 and 1.0. Pollock are known to occur above the sea floor and, due to the relatively shallow opening of the trawls used in the surveys, it is probable that all fish in the water column were not caught in the trawl, which is the underlying assumption for c = 0.5. If all the fish were caught, c would be 1.0.

The exploitable biomass was distributed (among the regulatory areas) according to results of the trawl surveys as follows:

Western	357,000 mt - 713,000 mt
Central	595,000 mt - 1,191,000 mt
Eastern	89,000 mt - 177,000 mt

MSY for the Gulf of Alaska is estimated to be 168,800 - 334,000 mt, using the relationship discussed in Section 4.7. On the basis of biomass distribution, MSY is currently distributed among the regulatory areas as follows:

Western	57,000 mt - 114,000 mt
Central	95,200 mt - 191,000 mt
Eastern	16,610 mt - 29,000 mt

8. In Section 4.7.6.2, page 4-22, "Sablefish Equilibrium Yield," eliminate the last paragraph and add the following:

Determination of yield from a population of fish is dependent on the size at which an individual fish becomes available to the fishery. EY for sablefish is based on data from the Japanese longline fishery. Hence, the implicit size at entry to the fishery for which the EY figure is appropriate is the size of entry to the Japanese longline fishery. Figure 4-1 shows the size distribution of fish taken by the Japanese longline fleet from 1967-1978 in all areas of the Gulf of Alaska. Table 58a demonstrates that although there is variability by year and area, the distribution has not changed significantly over time. Thus, the current EY reflects yields with sablefish entering the fishery from

about 42 cm (1.2 lbs dressed weight) until the fully recruited sizes of 62-65 cm (4.2-4.8 lbs dressed weight). Fish are 50% recruited at 55 cm (2.8 lbs dressed weight). Figure 4-2 shows the approximate proportion of fish of a given length which are recruited to the longline gear.

On the basis of the decline of CPUE from 1976 to 1977, EY for the Gulf of Alaska was determined to be 14,000 t in 1979. Because 61% of the sablefish resource was allocated to the areas west of 140°W longitude, the EY for this area, where foreign longlining is permitted, is 8,540 t. Table 58b shows that the overall 1980 CPUE for this area is not different from the overall 1977 CPUE.

For size at entry, as shown in Figure 4-2, EY for the areas west of 140°W can be estimated to remain at 8,540 mt.

Due to the termination of foreign fishing in the eastern Gulf, it is much more difficult to estimate EY for the area. Zenger and Hughes (1981) defined marketable size fish as those 57 cm or larger (3.0 lbs dressed), and estimated ABC for the Southeast area at 2,580 mt in 1980. As a result of the 1981 pot index survey (Zenger, 1981) showing a decline of 50% in this size range, which is roughly comparable to the size considered in the western area, EY for Southeast Alaska can be estimated at 1,290 mt to 2,580 mt.

Almost no current information is available for the portion of the Yakutat area east of 140°W longitude. On the basis of U.S. observer estimates, sablefish stocks in the Yakutat area west of 140°W were judged to be as abundant, though of a smaller size, in 1980 as in 1977. As stated above, Southeast stocks are thought to be off 50%. Assuming a general decline from west to east through Yakutat and Southeast suggests that the stocks in the eastern part of Yakutat may be down 25%. Therefore EY values (mt) for the Gulf of Alaska, based on the size at entry shown in Figure 4-2 are:

Western	Central	West Yakutat	East Yakutat	Southeast	Total
2,225	4,075	2,240	1,135-1,510	1,290-2,580	10,965-12,630

9. Section 5.2.2, page 5-8, "Expected Domestic Annual Harvest, (DAH)," replace the second paragraph with the following:

Therefore, in order to establish DAH for the fishing year, DAH for each species or species group shall equal the amounts of those species harvested by domestic fishermen during the preceding fishing year plus any additional amounts the Regional Director finds are likely to be harvested during the coming year by the growing domestic fishery up to the amount of the OY. The supplemental amounts will be based on surveys conducted by the National Marine Fisheries Service, recommendations from the Council, information provided by the domestic fishing industry, other agencies, and knowledgeable people. The Regional Director will issue a notice of preliminary DAH figures by October 1 of the preceding fishing year.

10. On page 5-9 replace the last two paragraphs of Section 5.2.2.1, "Delivered to U.S. Processors," with the following:

The survey and reassessment methodologies are designed to provide results consistent with the other provisions of this plan and the intent of P.L. 95-354. The DAP values established by this reassessment were applicable to the 1980 fishery. Since that time the annual domestic harvest delivered to domestic processors has not corresponded well with the estimates of DAP. This has been primarily due to the market for domestically produced groundfish products, which has been difficult to predict.

Consequently, because surplus DAP could not be reapportioned until August 1, groundfish may have gone unharvested even though it was apparent that the U.S. industry would not use its allocation.

In order to alleviate this problem, initial DAP amounts for each species or species group established for the beginning of a fishing year shall

equal the amount of those species harvested by domestic fishermen during the previous year plus any additional amounts the Regional Director finds will be harvested by the growing domestic fishery. The supplemental amounts will be based on surveys conducted by the National Marine Fisheries Service, recommendations from the Council, information provided by the domestic fishing industry, other agencies and knowledgeable people. The supplemental amounts will reflect as accurately as possible the probable increase in U.S. harvesting and processing capacity and the extent to which that capacity will be used.

11. On page 5-9 and 5-10 replace the last paragraph of Section 5.2.2.2 with the following:

While the performance of joint ventures during 1979 was below expectations, joint venture harvests increased to 1,900 mt in 1980, 17,000 mt in 1981, and over 77,000 mt in 1982. Commitments from foreign purchasers of U.S. caught groundfish will probably result in harvests in excess of 100,000 mt in 1983.

In recognition of this probability and consistent with the provisions of P.L. 95-354, after the initial DAP has been determined, the remainder of the initial DAH shall constitute the initial JVP, and be available for delivery to properly permitted foreign processing vessels at sea.

12. On page 5-10 add a new Section 5.2.2.3, "Reapportionment of DAH":

5.2.2.3 Reapportionment of DAH (DAP and/or JVP)

The Regional Director may assess the DAP and JVP at any time and apportion to them any amounts from the reserve that he finds will be taken by U.S. vessels. As the fishing season progresses, should the initial DAP exceed timely expectations of actual harvest, the Regional Director shall reapportion the excess to JVP, if needed, or to TALFF (Section 7.0).

If the initial JVP exceeds timely expectations of actual harvest, the Regional Director shall reapportion the excess to DAP, if needed, or to TALFF.

The Regional Director shall apportion to TALFF as soon as practicable after April 1, June 1, and August 1, and on such other dates as he determines appropriate any portion of JVP and/or DAP that he determines will not be harvested by U.S. fishing vessels during the remainder of the fishing year.

When the Regional Director determines that apportionment is required on dates other than those scheduled and that immediate action is necessary to increase DAP, JVP or TALFF, he may decide that such an adjustment is to be made without affording a prior opportunity for public comment. Public comments on the necessity for, and the extent of the apportionment shall then be submitted to the Regional Director for a number of days after the effective date that will be specified in a notice announcing such action.

13. In Section 6.1, pages 6-1 and 6-2, "Departure from MSY to ABC for Biological Reasons," pages 6-1 and 6-2, replace the first three paragraphs with the following:

Of the ten species categories which support the Gulf of Alaska groundfish fishery, MSY and EY were evaluated in Section 4.7; MSY and EY do not apply to the tenth category -- "Other Species." Only Pacific ocean perch and sablefish are incapable of producing MSY.

In determining ABC, an appraisal of the biological data base for most species indicates a degree of incompleteness that warrants a conservative approach to exploitation. Until evidence to supporting a contention that higher yields could be sustained, only catch levels which are equal to or less than the low end of the MSY/EY ranges have been considered relatively free from risk of overexploitation.

This concept acknowledges the possibility of underexploitation but, in the biological sense, overexploitation can lead to reduced abundance or even ecosystem imbalance that might prevail for years while underexploitation would leave the resource base in a healthy condition. Any loss to the users would likely be temporary and could be made up the following year.

Accordingly, ABCs for cod, flounders, squid, and rockfish (other than ocean perch), are considered equal to the low end of the MSY range (Table 58). The only estimate of MSY/EY for Atka mackerel is from a recent report of unsubstantiated Soviet research findings. Until those findings can be verified, ABC for that species should be no more than 85% of the reported EY (Table 58), again preferring the risk of short-term underexploitation to the risk of long-term effects of overharvest. This value (28,000 mt) is near the 1975-76 average catch of 24,200 mt and will not result in a decrease in production.

Preliminary analysis of pollock age structured catch data from the commercial fishery indicate that the exploitable biomass is higher in recent years (1979-81) than in earlier years (1976-79) in the Western and Central areas when the MSY figures were developed.

In the Western Area, ABC is set conservatively at the low end of the MSY range, 57,000 mt, until scientific information and analysis justifies a modification. In the Central Area, ABC is set equal to the midpoint of the MSY range, 143,000 mt. Although this amount is a 50% increase above the low end of the MSY range, it is 25%, or 48,000 mt, below the upper end of the MSY range and seems justified in light of the experience of U.S. commercial fisheries in the area. In view of the wide range in the MSY estimates, the ABC is considered to be conservative and appropriate. In the Eastern Area, ABC is set conservatively at 14,000 mt.

The sablefish ABC in each of the regulatory areas and districts is set approximately equal to 75% of the EY (Table 58). The overall EY of 10,965-12,670 mt is 44-58% of the 22,000-25,000 mt MSY for the Gulf of Alaska. When the FMP was first implemented the overall EY was 17,400-19,800 mt and the overall ABC was 13,000 mt. Rebuilding of sablefish stocks was expected at this harvest level, but as discussed in Section 4.7.6.2., stock conditions have remained the same in the Gulf of Alaska west of 140°W. and may have worsened east of 140°W. Accordingly, ABC is reduced to promote faster rebuilding of sablefish stocks throughout the Gulf of Alaska.

14. In Section 6.2, pages 6-4 and 6-5, "Departure from ABC for Socioeconomic Reasons," "Sablefish," replace the text with the following:

Sablefish - Because this species is of special importance in the development of a domestic groundfish fishery in the Gulf of Alaska, the objective of the sablefish management regime is to promote the development of the domestic sablefish fishery Gulf-wide. Therefore, the ABC has been set at a level that: (1) will allow rebuilding to MSY within a minimum time frame; (2) takes account of recent reports of U.S. fishermen of a scarcity of sablefish on the traditional fishing grounds of Southeast inside and outside waters; and (3) reflects concern over the Japanese catch per boat-day trend which has declined much more sharply than the catch per skate indicator used to estimate EY.

Accordingly, the sablefish OY shall equal the ABC, (Table 58) or approximately 75% of the EY. The sablefish OY will be apportioned in the same percentages as the most current estimates of EY. In addition, 500 mt of the total Southeast OY will be allocated to the Southeast inside district which is managed by the State of Alaska.

15. Replace Section 6.5, page 6-6, "Reserves," with the following:

6.5 Reserves

The reserve is set at 20% of each species and species group. Table 64 shows the distribution of the reserves to the individual regulatory areas.

At any time, the Regional Director may assess the DAP or JVP and apportion to them any amounts from the reserves that he finds will be harvested by U.S. vessels. As soon as practicable after April 1, June 1, and August 1, and on such other dates as he determines appropriate, the Regional Director shall apportion to TALFF any portion of the reserves that he determines will not be harvested by U.S. fishing vessels during the remainder of the fishing year.

Should the Regional Director determine that apportionment is required on dates other than those scheduled and that immediate action is necessary to increase a DAH or TALFF amount, he may decide that the only public comment period will be after the effective date of the action. In such cases the Regional Director will open the public comment a number of days after the effective date that will be specified in a notice announcing the action.

16. In Section 7.0, page 7-1, "TALFF," replace the sentence, "DAH projections are shown in Table 61," in the first paragraph with the sentence, "DAH will be determined annually, as described in Section 5.2.2."

17. Revise Section 8.3.1.1, page 8-2, part (A), as follows:

(A) Division of DAH by Area

The DAH for all species and species groups will be determined for each regulatory area, as described in Section 5.2.2.

18. Add to Section 8.3.2.1, page 8-11, "Foreign Season, Gear, Area, and Catch Restrictions," the following:

(E) Issuance of Field Orders

The Regional Director of the National Marine Fisheries Service may issue field orders imposing time and/or area restrictions on the foreign fishery for conservation purposes based upon the same factors considered when imposing time and/or area restrictions on the domestic fishery given in Section 8.3.1.1(H).

19. Add to Section 8.5.1, page 8-15, "Domestic Reporting Requirements," the following:

(C) In addition to the above requirements domestic fishermen who fish in the FCZ off Alaska and deliver groundfish outside of Alaska must report their catch or advise the management agencies of their departure by radio or telephone.

20. Add the following to Section 10.0, "References":

Balsiger, J., ed., Condition of groundfish resources of the Gulf of Alaska in 1982. Unpl. rep., 198 p. Northwest and Alaska Fisheries Center, NMFS, NOAA, 2725 Montlake Blvd. East, Seattle, WA 98112 (Submtited to the International North Pacific Fisheries Commission in October 1982).

Bracken, Barry E., 1982. "Sablefish (Anoplopoma fimbria) Migration in the Gulf of Alaska Based on Gulf-wide Tag Recoveries, 1973-1981," Informational Leaflet No. 199, Alaska Department of Fish and Game, P.O. Box 667, Petersburg, AK 99833

Zenger, Jr., Harold H., 1981. "Relative Abundance and Size Composition of Sablefish in Coastal Waters of Southeast Alaska, 1978-81," NOAA Technical Memorandum NMFS F/NWC-20, Northwest and Alaska Fisheries Center, National Marine Fisheries Service, 2725 Montlake Boulevard East, Seattle, WA 98112

Zenger, Jr., Harold H. and Steven E. Hughes, 1981. "Change in Relative Abundance and Size Composition of Sablefish in the Coastal Waters of Southeast Alaska, 1978-80," NOAA Technical Memorandum NMFS F/NWC-7, Northwest and Alaska Fisheries Center, National Marine Fisheries Service, 2725 Montlake Boulevard East, Seattle, WA 98112

TABLE 58

n of Optimum Yield (OY) for
roundfish Resources (1,000s mt)

ic erch	Sablefish	Atka Mackerel	Other Rockfish	Squid	Sebastolobus Sp.	Other Species
wn	unknown		unknown		unknown	
	"		"		"	
	"		"		"	
				(110)[1/]		
50	22-25	(33)[1/]	7.6-10	5.0	3.75	
	2,225					
	4,075					
	4,665-6,330					
	10,965-12,630	N/A	N/A	N/A	N/A	
	1.67	4.7				
	3.06	20.8				
	3.5-4.75	3.2				
	8.23-9.480	28.7[3/]	7.6	5.0[4/]	3.75	18.752
	1.67	4.7	----------	(OY apportioned Gulf-wide)	----------	
	3.06	20.8	"	"	"	"
	3.5-4.75	3.2	"	"	"	"
	8.23-9.480	28.7	7.6	5.0	3.75	18.752

atch.

TABLE 58a

Average size (cm) of sablefish taken by the Japanese longline fleet in the Gulf of Alaska from 1969-1981. (Data from foreign reported fishery statistics.)

Year	All Areas	Shumagin	Chirikof	Kodiak	Yakutat	Southeast
1969	67.2	--	65.2	--	68.7	--
1970	66.2	--	--	60.5	67.8	68.6
1971	65.4	61.4	60.6	63.6	66.3	66.0
1972	62.3	62.4	60.8	60.8	63.9	63.5
1973	62.8	63.2	61.2	63.7	63.7	64.4
1974	--	--	--	--	--	--
1975	67.1	66.4	--	--	--	67.9
1976	66.2	66.3	65.5	64.1	65.9	68.4
1977	64.7	--	60.9	--	64.6	65.0
1978	67.4	65.8	67.0	67.0	69.9	--
1979	--	66.3	64.7	63.5	63.5	--
1980	--	60.4	60.9	61.8	59.1	--
1981	--	58.9	56.1	59.7	59.8	--
Average	64.6	64.5	62.0	63.5	66.3	65.7

TABLE 58b(1) -- CPUE (t/1,000 hooks) for sablefish in Japanese longline fishery for observer hauls from 500 m depth as determined by U.S. observers.

Year	Shumagin	Chirikof	Kodiak	Yakutat	Southeast	Shumagin-Yakutat
1977	.237	---	.247	.361	.428	.293
1978[1/]	.236	.204	.241	.232		.232
1979[1/]	.140	.202	.228	.268		.216
1980[1/]	.286	.275	.350	.254		.298
1981[1/]	.238	.419	.491	.194		.334

TABLE 58b(2) -- CPUE (t/1,000 hooks) for large sablefish (greater than 67 cm) in the Japanese longline fishery for hauls from 500 m depth as determined by U.S. observers.

Year	Shumagin	Chirikof	Kodiak	Yakutat	Southeast	Shumagin-Yakutat
1977	.123	---	.169	.211	.269	.179
1978	.140	.107	.141	.126		.132
1979	.085	.109	.117	.149		.117
1980	.133	.089	.174	.086		.131
1981	.112	.130	.167	.037		.122

1/ The area east of 140°W in Yakutat was closed to foreign longlining in 1978 and 1979.

TABLE 61
Historical Data
1979 Estimated Domestic Annual Harvest (DAH) of
Groundfish from the Gulf of Alaska in Metric Tons

Species	Metric Tons
Pollock	21,310
Pacific Cod	10,000
Flounders	3,180
Pacific Ocean Perch	2,100
Other Rockfish	900
Sablefish	6,480
Atka Mackerel	2,070
Squid	150
Sebastolobus sp.	6
Other Species	1,720
TOTAL	47,916

TABLE 61-a
Historical Data
1979 DAH by Species by Area (Metric Tons)

Species	Western	Central	Eastern	Total
Pollock	5,775	13,320	2,215	21,310
Pacific Cod	1,880	6,050	2,070	10,000
Flounder	700	1,120	1,360	3,180
Pacific Ocean Perch	345	1,255	500	2,100
Other Rockfish		Gulf-wide OY		900
Sablefish	270	1,220	4,990	6,480
Atka Mackerel	290	1,080	700	2,070
Squid		Gulf-wide OY		150
Sebastolobus sp.		Gulf-wide OY		6
Other Species		Gulf-wide OY		1,720

Note: DAH will be updated annually as described in Section 5.2.2.

TABLE 62

An Example of TALFF Calculation (1,000s mt)
Based on Historical Data

Species	OY	Reserve	DAH[1/]	TALFF[2/]
Pollock	216.8	43.36	117.39	56.05
Pacific Cod	60.0	12.0	10.0	38.00
Flounders	33.5	6.7	3.18	23.62
Pacific Ocean Perch	11.475	2.295	2.1	7.08
Other Rockfish	7.6	1.52	0.9	5.18
Sablefish[3/]	6.41	1.282	2.02	3.108
Atka Mackerel	28.7	5.74	2.07	20.89
Squid	5.0	1.0	0.15	3.85
Sebastolobus sp.	3.75	0.75	0.006	2.994
Other Species	18.752	3.75	1.72	13.282
TOTAL	391.987	77.377	139.536	169.97

1/ Figures are examples only. DAH will be determined annually as described in Section 5.2.2.

2/ Figures are examples only. TALFF will be determined annually after DAH has been determined.

3/ Figures are for the area west of 140°W. only, where foreign fishing is allowed.

TABLE 63

Percentages of OY to be Apportioned to GOA Regulatory Areas

Species	Western	Central	Eastern	Total
Pollock	26.0	67.0	7.0	100
Pacific Cod	27.6	55.9	16.5	100
Flounders	31.0	44.0	25.0	100
Pacific Ocean Perch	23.5	68.9	7.6	100
Other Rockfish		Gulf-wide OY		100
Sablefish	20.0	37.0	43.0	100
Atka Mackerel	16.3	72.6	11.1	100
Squid		Gulf-wide OY		100
Sebastolobus sp.		Gulf-wide OY		100
Other Species		Gulf-wide OY		100

TABLE 64

OY, DAH, DAP, JVP[2/], Reserve, and TALFF by Area (1,000s mt)

Species			Western	Central	Eastern	Total
Pollock	1.	OY	57.0	143.0	16.6	216.6
	2.	DAH	5.775	109.4	2.215	117.39
	3.	...DAP	0.025	5.38	0.695	6.1
	4.	...JVP	5.75	104.02	1.52	111.29
	5.	Reserve	11.4	28.6	3.32	43.32
	6.	TALFF	39.825	5.0	11.065	55.89
Pacific Cod	1.	OY	16.56	33.54	9.9	60.0
	2.	DAH	1.88	6.05	2.07	10.0
	3.	...DAP	0.84	4.68	1.48	7.0
	4.	...JVP	1.04	1.37	0.59	3.0
	5.	Reserve	3.312	6.708	1.98	12.0
	6.	TALFF	11.368	20.782	5.85	38.0
Flounders	1.	OY	10.4	14.7	8.4	33.5
	2.	DAH	0.7	1.12	1.36	3.18
	3.	...DAP	0.1	0.3	0.9	1.3
	4.	...JVP	0.6	0.82	0.46	1.88
	5.	Reserve	2.08	2.94	1.68	6.7
	6.	TALFF	7.62	10.64	5.36	23.62
Pacific Ocean Perch	1.	OY	2.7	7.9	0.875	11.475
	2.	DAH	0.345	1.255	0.5	2.1
	3.	...DAP	0.025	0.295	0.3	0.62
	4.	...JVP	0.32	0.96	0.2	1.48
	5.	Reserve	0.54	1.58	0.175	2.295
	6.	TALFF	1.815	5.065	0.2	7.08
Other Rockfish	1.	OY				7.6
	2.	DAH				0.9
	3.	...DAP		Gulf-wide OY		0.7
	4.	...JVP				0.2
	5.	Reserve				1.52
	6.	TALFF				5.18
Sablefish[1/3/]	1.	OY	1.67	3.06	1.68	6.41
	2.	DAH	0.27	1.22	.53	2.02
	3.	...DAP	0.1	1.0	.53	1.63
	4.	...JVP	0.17	0.22	0.0	0.39
	5.	Reserve	0.334	0.612	0.336	1.282
	6.	TALFF	1.066	1.228	0.814	3.108

TABLE 64 (cont'd)

Species			Western	Central	Eastern	Total
Atka Mackerel	1.	OY	4.678	20.836	3.186	28.7
	2.	DAH	0.29	1.08	0.7	2.07
	3.	...DAP	0.0	0.0	0.0	0.0
	4.	...JVP	0.29	1.08	0.7	2.07
	5.	Reserve	0.936	4.167	0.637	5.74
	6.	TALFF	3.452	15.589	1.849	20.89
Squid	1.	OY				5.0
	2.	DAH				0.15
	3.	...DAP		Gulf-wide OY		0.0
	4.	...JVP				0.15
	5.	Reserve				1.0
	6.	TALFF				3.85
Sebastolobus Sp.	1.	OY				3.75
	2.	DAH				0.006
	3.	...DAP		Gulf-wide OY		0.006
	4.	...JVP				0.0
	5.	Reserve				0.75
	6.	TALFF				2.994
Other Species	1.	OY				18.752
	2.	DAH				1.72
	3.	...DAP		Gulf-wide OY		1.1
	4.	...JVP				0.62
	5.	Reserve				3.75
	6.	TALFF				13.282

1/ See Table 65 for Sablefish OY-DAH-DAP-JVP-Reserve TALFF within the Eastern Area.

2/ DAH, DAP, and JVP values are example only. These values will be updated annually by the Regional Director, as described in Section 5.2.2.

3/ Figures for the area west of 140°W. where foreign fishing is permitted.

TABLE 65

Sablefish OY-DAH-DAP-JVP-RESERVE-TALFF for Districts within the Eastern Regulatory Area (metric tons)

	Western Yakutat	Eastern Yakutat	Southeast Outside District	Southeast Inside District
OY	1,680	850-1,135	470-1,435	500
DAH	530	850-1,135	470-1,435	500
DAP	530	850-1,135	470-1,435	-0-
JVP	-0-	-0-	-0-	-0-
Reserve	336	-0-	-0-	-0-
TALFF	814	-0-	-0-	-0-

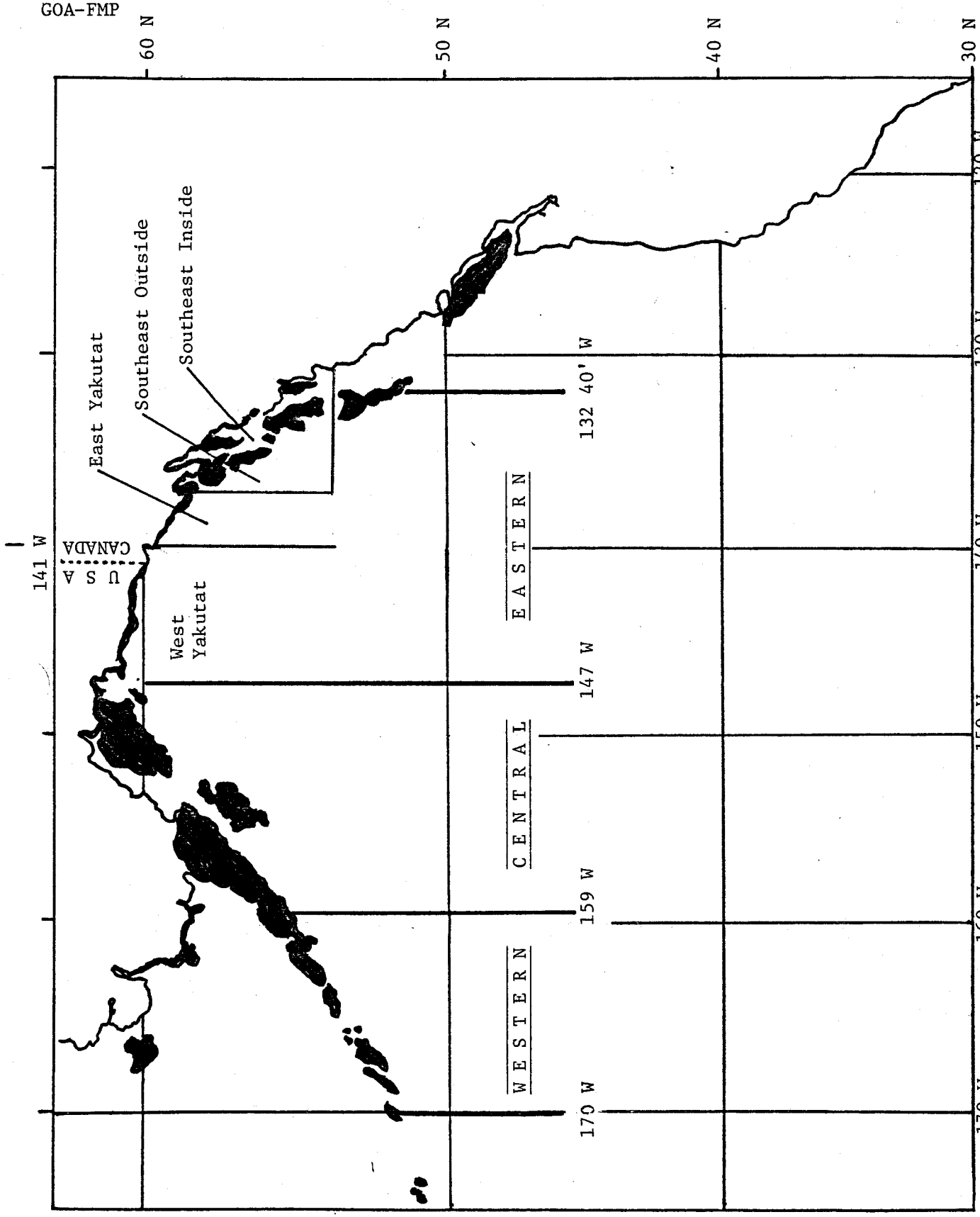

Figure 1 -- Regulatory Areas of the Gulf of Alaska (FMP)

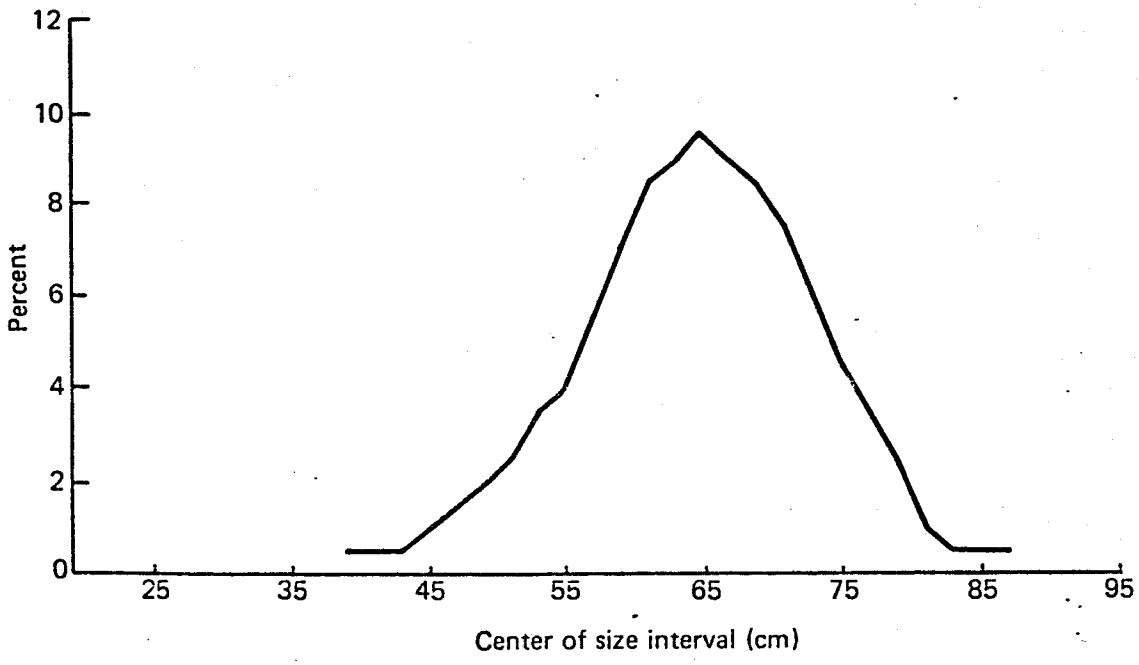

Figure 4-1 -- Size composition of sablefish caught by the Japanese longline fleet in the Gulf of Alaska from 1967 to 1978.

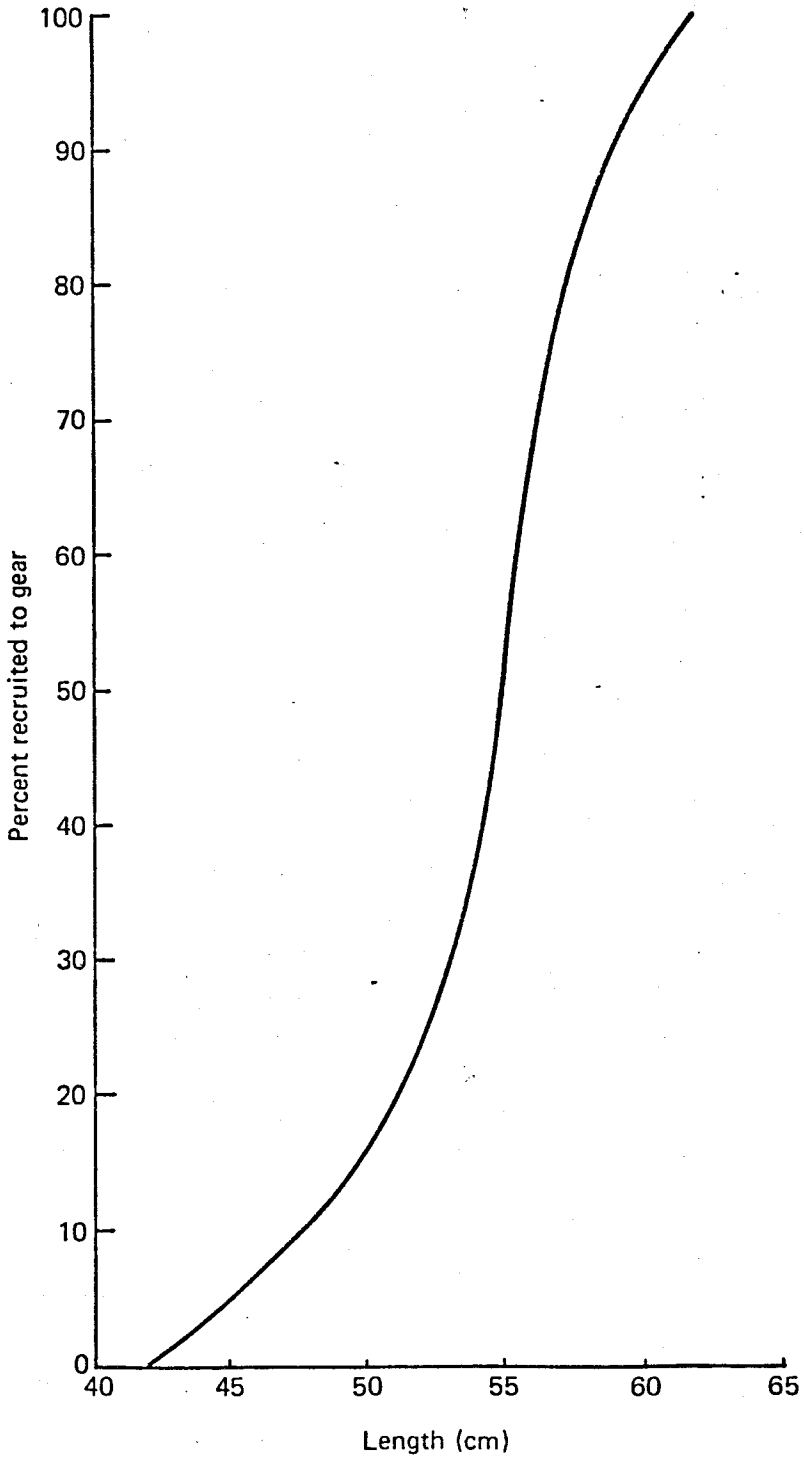

Figure 4-2 -- Apparent recruitment of sablefish to longline gear as observed in the Japanese longline fishery.

ENVIRONMENTAL ASSESSMENT FOR AMENDMENT 11 TO THE FISHERY MANAGEMENT PLAN FOR GROUNDFISH OF THE GULF OF ALASKA

INTRODUCTION

The Fishery Management Plan (FMP) for the Gulf of Alaska Groundfish was adopted by the North Pacific Fishery Management Council (Council), approved and implemented by the Assistant Administrator for Fisheries of the National Oceanic and Atmospheric Administration (Assistant Administrator) under Sections 302-305 of the Magnuson Fishery Conservation and Management Act (Magnuson Act), and published on April 21, 1978, 43 FR 17242. A final environmental impact statement was prepared for the FMP and is on file with the Environmental Protection Agency.

The Council adopted Amendment 11 to the FMP on July 22, 1982. The Assistant Administrator, acting on behalf of the Secretary of Commerce now proposes to implement the amendment which would (1) raise the optimum yield (OY) for pollock in the Central Regulatory area; (2) divide the Yakutat district into two districts for purposes of better sablefish management; (3) reduce the OY for sablefish throughout the Gulf of Alaska; (4) establish a framework procedure to allow the Regional Director to determine annually the domestic annual harvest (DAH) components for each species OY; (5) eliminate the domestic nonprocessed (DNP) component of DAH; (6) modify reserve and surplus DAH apportionment procedures; (7) provide the Regional Director the authority to impose time and/or area restrictions on foreign nations for conservation reasons; and (8) require domestic fishermen who intend to land groundfish outside Alaska to advise Alaska fishery management agencies of their departure from Alaska waters.

This environmental assessment is prepared under Section 102(2)(C) of the National Environmental Policy Act (NEPA) and its implementing regulations to determine whether an environmental impact statement must be prepared on the proposed action.

DESCRIPTION OF AND NEED FOR THE PROPOSED ACTION

A description of, and the need for, each part of Amendment 11 follows:

1. The optimum yield (OY) for pollock in the Central Regulatory area would be increased from 95,200 mt to 143,000 mt. The OY increase would accommodate the rapidly expanding domestic fishery in the Central Regulatory area that is targeting on pollock and delivering to foreign processing vessels at sea in joint ventures. This fishery is capitalizing on pollock that concentrate during early spring in Shelikof Strait between Kodiak Island and the Alaska Peninsula. Joint venture harvests of pollock in the area have increased from 1,900 mt in 1980, to 17,000 mt in 1981, to more than 77,000 mt in 1982. Commitments from foreign purchasers of U.S.-caught groundfish have resulted in a harvest approaching 130,000 mt in 1983.

Based on testimony to the Council, the 143,000 mt OY would be apportioned among domestic annual processing (DAP), joint venture processing (JVP), reserves and the total allowable level of foreign fishing (TALFF) as follows: DAP = 5,380 mt, JVP = 104,020, Reserves = 28,600 mt, and TALFF = 5,000.

2. The Yakutat district of the Eastern Regulatory area would be divided into two districts -- East Yakutat (137°-140° W. longitude) and West Yakutat (140°-147°W. longitude) for purposes of better managing sablefish. Under the current management regime a single OY for sablefish, and its DAP, JVP, TALFF and reserve components, are established for all of the Yakutat district, which is between 137° and 147° W. longitudes. Foreign fishing, however, is restricted in the Yakutat district to the area west of 140° W. longitude. Foreign fishermen, then, can attempt to harvest the entire allocation from an area smaller than the allocation area, which could result in overfishing of local stocks. Domestic fishermen may also attempt to harvest the entire DAP and JVP amounts of sablefish from a smaller area. By dividing the Yakutat district into two districts and apportioning the OY for sablefish between the two districts, fishermen would be encouraged to extend their efforts over a wider area and local stocks of sablefish would be managed more conservatively.

The data base used to analyze the condition of sablefish stocks has changed because foreign fishing was restricted to west of 140° W. longitude in 1982. Foreign catch reporting in the new West Yakutat district would be consistent with presently permissible foreign fishing areas and would thus be more reflective of stock conditions in that district.

3. The overall optimum yield for sablefish in the 3-200 mile fishery conservation zone would be reduced from 12,300 mt to a range of 7,730-8,980 mt and apportioned among the regulatory areas/districts. The condition of the sablefish resource is generally depressed throughout the Gulf of Alaska as evidenced by analyses of foreign and domestic catch data and magnitudes of recent catches compared to those of previous years. Whereas sablefish were once so abundant that total annual catches in excess of 20,000 metric tons were possible (the largest total catch was 36,505 mt in 1972), total catches since 1978 have been comparatively small, ranging from 7,461 mt in 1982 to 9,763 mt in 1981.

The Council has determined that sablefish stocks should be managed to allow for faster rebuilding than would occur if they were harvested at the equilibrium yield (EY) level, estimated to be a range of 10,965-12,630 mt in the Gulf of Alaska (Table 1). OY is set equal to ABC, which is approximately equal to 75 percent of the EY, and is apportioned among the regulatory areas/districts of the Gulf of Alaska.

Table 1. Equilibrium Yields and optimum yields (= ABC's) in the regulatory areas and districts of the Gulf of Alaska

	Regulatory Areas		Districts			
	Western	Central	West Yakutat	East Yakutat	Southeast	Total
EY(mt)	2,225	4,075	2,240	1,135-1,510	1,290-2,580	10,965-12,630
OY (mt)	1,670	3,060	1,680	850-1,135	970-1,935	8,230-9,480

1/ Total OY includes 500 mt allocated to the Southeast Inside district which is in State of Alaska waters and managed by the State.

4. A framework procedure would be established to allow the Regional Director to determine annually the DAP and JVP components of the domestic annual harvest (DAH) for each species OY. The Council is presently able to adjust the DAP and JVP components of DAH only by amending the FMP, a process that is too lengthy and is not responsive to the needs of the fishing industry. Future specifications of DAP's and JVP's necessary to support domestic operations and joint ventures, respectively, are expected to change and the amount of change could well be unpredictable.

The Council adopted the framework procedure to assure that sufficient quantities of groundfish would be available to accommodate the needs of the U.S. industry. Under the proposed framework procedure, initial DAP and JVP amounts would equal the amounts harvested by domestic fishermen during the previous fishing year plus any additional amounts that are necessary to satisfy expected need for the new fishing year. The Regional Director, upon recommendation from the Council, would publish a rule-related notice in the FEDERAL REGISTER that would propose apportionments of each OY among DAP, JVP, TALFF, and reserve as soon as practicable after October 1. Based on comments received, he would publish a second rule related notice of final apportionment figures before January 1 of each new fishing year. Hence, planning by domestic and foreign fisherman could be enhanced on the basis of timely apportionments.

5. The domestic non-processed (DNP) component of DAH that was apportioned for bait and personal consumption would be eliminated and the numerical specifications would be combined with DAP. Amounts specified as DNP that were used for bait and personal consumption are not specifically monitored. DNP amounts are presently designated only for Pacific cod and "other species". Rather than continue to specify useless DNP amounts for those species, the numerical amounts would be combined with DAP specifications.

6. The reserve and surplus DAH apportionment procedures would be modified to allow the Regional Director to reapportion reserves and surplus DAH to TALFF on the dates already specified in current regulations and on any other dates he determines necessary. Current regulations provide for the Regional Director to reapportion to DAH any amounts of the reserves on three specified

dates or at any other time considered necessary. Surplus DAH may be reapportioned to TALFF only after August 1. Reserves may be reapportioned to TALFF only after April 1, June 1, and August 1 and then only in certain amounts. The current limitations in the timing of reapportionments of those amounts of groundfish considered surplus to U.S. fishing needs has constrained full utilization of available groundfish. Under this proposed measure the Regional Director may reapportion to TALFF any amount of reserves and DAH, which are surplus to U.S. fishing needs for the remainder of the fishing year, as soon as practicable after April 1, June 1, and August 1, or on any other date considered necessary.

If a reapportionment is made on dates other than those scheduled, and immediate action is necessary to prevent the closure of a fishery, the Regional Director could act without affording a prior opportunity for public comment. Public comments on the necessity for, and extent of the reapportionment would then be submitted for a period of 15 days after the effective date of such action.

7. The Regional Director would be delegated the authority to impose time and/or area restrictions on foreign nations for conservation reasons. The FMP and its implementing regulations currently provide to the Regional Director the authority to issue field orders, imposing time and/or area restrictions on domestic fisherman for conservation reasons. This amendment would provide the same authority to the Regional Director to restrict foreign fisheries in order to protect stocks of groundfish and Pacific halibut.

The rationale for this authority is based on the following two objectives set forth for the FMP management regime: 1, Rationale and optimal use, in both the biological and socioeconomic sense, of the region's fishery resources as a whole; and 2, Protection of the Pacific halibut resource, which for decades has supported the only significant U.S. groundfish fishery in the region.

In determining the necessity of an in-season time and/or area restriction, the Regional Director would consider in-season fishery and U.S. observer data that relate to one or more of the following conditions:

(i) the effect of overall fishing effort within a regulatory area;
(ii) catch per unit effort and rate of harvest;
(iii) relative abundance of stocks within an area;
(iv) amount of Pacific halibut being caught;
(v) condition of groundfish stocks within the area; and
(vi) any other factors relevant to the conservation and management of the groundfish, Pacific halibut or crab resources.

8. Domestic fishermen who intend to land groundfish outside State and Federal waters off Alaska would be required to advise management agencies by radio or telephone before leaving Alaska waters. The Alaska Department of Fish and Game (ADF&G) and the National Marine Fisheries Service, Alaska Region (Alaska Region), monitor the domestic groundfish fishery and have a need for timely receipt and analysis of catch data to prevent domestic quotas of groundfish from being exceeded, which could result in biological overfishing of groundfish stocks.

ADF&G has reported a number of instances of large catcher-processor vessels fishing in State and Federal waters in the Gulf of Alaska that were not properly documented, did not report Gulf of Alaska groundfish catches landed in Washington, or reported landings in Washington too late to be useful for in-season management decisions.

The Alaska Region has an additional need for timely catch data on which to base rational decisions relating to the apportionment of reserves to DAP, JVP, and TALFF in order to promote full utilization of available groundfish. Large domestic catcher-processor vessels are capable of harvesting substantial portions of groundfish quotas for delivery outside Alaska. Knowledge of their departure and the following up of their reporting of catches at ports outside Alaska is essential to allow successful in-season groundfish management.

ALTERNATIVES, INCLUDING THE PROPOSED ACTION

Eight actions are proposed under Amendment 11. These actions can be considered independently on their own merits. Thus, the Assistant Administrator

could approve one action and disapprove another. An opportunity for public comment on Amendment 11 and its implementing regulations will be provided. The desirability and compliance with the Magnuson Act and other applicable law of all of the following alternatives will be re-evaluated in light of any comments that may be received. Each proposed action and the alternatives to these actions are as follows:

1. (Proposed Action) The optimum yield for pollock in the Central Regulatory area would be increased from 95,200 mt to 143,000 mt.

This alternative is preferred because it would accommodate the rapidly expanding domestic fisheries in the Central Regulatory Area and is consistent with current status of pollock stocks in the Central Area.

(Alternative 1) Increase the pollock OY in the Central Regulatory area from 95,200 mt to 191,000 mt.

Although this alternative would provide more than enough pollock for U.S. and foreign fisheries, it is based on the assumption that the trawl gear used in pollock biomass surveys which are the basis for the ABC range, was only 50 percent efficient and measured only one half of the pollock resource in the Central Regulatory Area. No data are available which indicate that the survey gear was only 50 percent efficient, therefore the risk of overfishing under this alternative has been judged unacceptably high. This alternative also assumes that the entire pollock spawning biomass is from the Central Regulatory Area, when some of the spawning fish may be from areas further to the west. Additionally, this alternative would allow greater foreign effort than under the current pollock OY and could result in an increased by-catch of Pacific halibut, a species fully utilized by a directed U.S. fishery. For these reasons this alternative is considered unacceptable.

(Alternative 2) Maintain the pollock OY in the Central Regulatory area at its present level of 95,200 mt.

This alternative represents the status quo. The present OY is a very conservative estimate of the pollock biomass based on trawl surveys and the

assumption that 100 percent of the fish in the path of the survey trawls were captured by the gear (100 percent trawl efficiency). Efficiency of trawl survey gear used for pollock has never been estimated, although Alton, et. al. (1977) commented that pollock are known to occur above the sea floor and out of range of the bottom trawls used in the survey. Trawl efficiencies for similar gadoid species in the northeast Atlantic have been estimated and vary considerably from 8 percent to 51 percent. Thus, this alternative appears to be very conservative and would probably result in no significant risk to the resource as a result of overfishing.

This alternative is unacceptable because it is not based on the most current information on the status of pollock resource. The FMP provides for increasing OYs above the original conservative estimates if evidence shows that higher yields could be sustained. Additionally, the alternative would result in an early closure of the Central Regulatory Area to further pollock fishing in U.S. by fishermen and preclude any foreign trawling for any bottomfish species for which there is a TALFF in the same area.

2. (Proposed Action) The Yakutat district of the Eastern Regulatory area would be divided into two districts--East Yakutat (137°-140° W. longitude) and West Yakutat (140°-147° W. longitude) for purposes of better managing sablefish.

This alternative is preferred because it would encourage domestic fishermen to extend their efforts over a wider area and would reduce the possibility of overfishing local sablefish stocks.

(Alternative 1) Maintain the current Yakutat district as a single management district.

Under this alternative, a single sablefish OY for the whole Yakutat area would be maintained. Because the resource has declined, the whole OY could be taken from only one portion of the area and result in localized overfishing. Current fishing practices and resource surveys support managing sablefish in the Yakutat district as two separate stocks. To do otherwise would be inconsistent with National Standard 2, which requires that conservation and

management measures shall be based upon the best scientific information available. For these reasons this alternative is considered to be unacceptable.

3. (Proposed Action) The overall optimum yield for sablefish in the 3-200 mile fishery conservation zone would be reduced from 12,300 mt to a range of 7,730-8,980 mt and apportioned among the regulatory areas/districts.

This alternative is preferred because it would promote faster rebuilding of sablefish stocks throughout the Gulf of Alaska.

(Alternative 1) Maintain the sablefish OY at its overall level of 12,300 mt.

Managing the fishery at the current OY levels could result in over-fishing. Because the Council's management objective is to rebuild the sablefish resource to benefit the domestic industry throughout the Gulf of Alaska this alternative is considered to be unacceptable.

(Alternative 2) Set the sablefish OY at a figure less than 75 percent of the current EY.

This alternative would result in a faster rebuilding of the sablefish resource. However, it could result in no foreign fishery if DAH were to equal the OY and the domestic harvest itself could be curtailed. Because this alternative could be potentially too disruptive to foreign and domestic fishermen, it is unacceptable.

4. (Proposed Action) A framework procedure would be established to allow the Regional Director to determine annually the domestic annual harvest (DAH) components for each species OY.

This alternative is preferred because it would accommodate the needs of, and enhance planning by the domestic industry by providing timely apportionments of groundfish.

(Alternative 1) Maintain existing procedures of establishing the DAH components by plan amendment.

This alternative increases uncertainty for both the domestic and foreign fishing industries due to the lengthy procedures required to initiate and implement plan amendments. Such uncertainty and any adverse efforts it may have in meeting the objectives of the FMP cause this alternative to be unacceptable.

5. (Proposed Action) The domestic non-processed (DNP) component of DAH that was apportioned for bait and personal consumption would be eliminated and the numerical specifications would be combined with DAP.

This alternative is preferred because it would eliminate an administrative inefficiency. Rather than continue to specify DNP amounts for those species, the numerical amounts would be combined with DAP specifications.

(Alternative 1) Maintain DNP as a component of DAH.

DNP amounts are presently designated only for Pacific cod and "other species" for use as bait and personal consumption. These amounts are not monitored and therefore cannot be used feasibly in managing the fisheries. Continuance of these specifications results in administrative inefficiency. Therefore, this alternative is unacceptable.

6. (Proposed Action) The reserve and surplus DAH apportionment procedures would be modified to allow the Regional Director to reapportion reserves and surplus DAH to TALFF on the dates already specified in current regulations and on any other dates he may determine necessary.

This alternative is preferred because it would promote full utilization of available groundfish resources.

(Alternative 1) Maintain the present schedule that allows the Regional Director to reapportion reserves and surplus DAH to TALFF only on dates already specified in current regulations.

Amounts of groundfish considered surplus to the needs of U.S. fishermen should be made available for harvest by foreign nations to promote full utilization of groundfish resources, subject to national trade policy. Under this alternative (status quo), surplus groundfish may not be reapportioned to TALFF within a time frame that would allow for foreign harvest. Possible under-utilization of resources could result. For this reason, this alternative is not acceptable.

7. (Proposed Action) The Regional Director would be delegated the authority to impose time and/or area restrictions on foreign nations for conservation reasons.

This alternative is preferred because it would promote conservation of groundfish stocks and Pacific halibut.

(Alternative 1) Use the Secretary's authority under Section 305(e) of the Magnuson Act to impose emergency time and/or area restrictions.

This authority can be invoked for a maximum of 180 days but may not be timely due to bureaucratic constraints. A fishing resource may need to be protected for longer than six months. This alternative is therefore considered unacceptable.

(Alternative 2) Do not delegate to the Regional Director authority to impose time and/or area restrictions.

The FMP does not currently provide authority to the Regional Director to impose time and/or area closures on the foreign fisheries for conservation reasons, although this authority exists for the domestic fisheries. If in-season fishery indicators or survey information demonstrate that stocks are in substantially different condition from that anticipated at the beginning of the fishing season, the Regional Director cannot take appropriate action to

conserve the resource. This alternative is considered, therefore, to be unacceptable.

8. (Proposed Action) Domestic fishermen who intend to land groundfish outside State and Federal waters of Alaska would be required to advise management agencies by radio or telephone before leaving Alaska waters.

This alternative is preferred because it would allow management decisions that are based on the best available catch information.

(Alternative 1) Maintain existing reporting requirements for landing Alaska caught fish outside of Alaska.

Currently, fishermen who harvest groundfish off Alaska and who land those fish outside Alaska are required by Federal Regulation to submit a completed State of Alaska fish ticket or an equivalent document containing all of the information required on an Alaska fish ticket, to the Alaska Department of Fish and Game within one week after the date of each delivery. Most groundfish landed outside Alaska are landed in the State of Washington and a Washington fish ticket is considered to be an equivalent document. However, the landings are usually not reported until one to three months later, and therefore cannot be used for in-season management decisions. This circumstance greatly increases the risk of overfishing. For this reason, this alternative is considered to be unacceptable.

ENVIRONMENTAL IMPACT OF THE PROPOSED ACTION AND ALTERNATIVES

Impacts on the Biological and Physical Environment

A. Increase the pollock OY in the Central Regulatory area from 95,200 mt to 143,000 mt. (First proposed action).

Pollock is an important predator in the ecosystem, consuming herring, other small adult fishes, juvenile Pacific cod, and even juvenile pollock, etc. Juvenile pollock consume smaller life forms in the food chain, including

myriad forms of zooplankton. In turn, pollock are known to be consumed by other fishes, marine mammals, and marine birds. Because fishermen harvest pollock, they are also a predator in the ecosystem.

An increase in the harvest of pollock can be expected to introduce changes in the ecosystem in that some change in the predator/prey relationships can be expected. Such change is difficult to quantify with any precision and therefore is not well understood.

In addition to introducing some changes in the ecosystem, an increase in fishing activity may cause some stress in the following ways: (1) direct stress to marine mammals; (2) direct stress to marine birds; (3) food competition with marine mammals and birds, and (4) environmental pollution resulting from the increase dumping of fish wastes into the sea.

1. Direct Stress to Marine Mammals

Twenty-six species of marine mammals, including cetaceans (whales) and pinnipeds (seals and sea lions), permanently reside in or seasonally frequent the Gulf of Alaska (Morris, et al, 1983). See Attachment 1. Many species occur in large numbers each spring and summer, but are few in numbers during winter. Because these marine mammals are closely associated with commercially exploitable concentrations of groundfish, direct physical conflicts with the groundfish operations and the gear through which these operations are carried out are inevitable.

This problem is especially acute with respect to the northern sea lion. These animals may completely leave an area in the face of minimal human activity, but may also congregate in the area of commercial groundfish operations. Sea lions have been known to damage fishing gear and the catch before the catch can be taken aboard a fishing vessel. Such activities by sea lions could result in defensive action by the affected fishermen who may physically harm or harass these animals. Sea lions are also known to be entrapped in trawl gear and in debris that has been discharged into the sea through groundfish operations.

The potential exists that the incidental take and resulting mortality of sea lions could increase due to the increase in the pollock harvest in Shelikof Strait. The sea lion population in the Shelikof Strait area has been estimated at nearly 86,000 animals, and in the Gulf of Alaska at 135,700 animals. The reported incidental take through April 1983 is 279 animals. This take represents 0.3 percent of the Shelikof Strait population and 0.2 percent of the Gulf of Alaska population overall. In various proceedings regarding return of management authority of marine mammals to the State of Alaska, a harvest level of seven percent of the population was established to be a level that would not result in a population decline. The current number of sea lions taken in the Shelikof Strait fishery is well below this level.

Fishermen are aware of the protection afforded sea lions, as well as other marine mammals. Because sea lions are usually highly visible during daytime, fishermen are expected to actively avoid them while trawling, thus minimizing confrontations. Observations by the National Marine Fisheries Service suggest, however, that trawling conducted during periods of darkness is likely to increase encounters with sea lions. Potential methods to reduce such encounters include (1) scheduling fishing operations to reduce or eliminate the need to trawl during periods of darkness, and (2) adopting certain technical devices (e.g. noise emitters) that would repel sea lions in the vicinity of a trawl. Fishermen could be encouraged to consider and adopt such measures to mitigate efforts of their operations on sea lions.

Hence, an increased pollock harvest does not present a foregone conclusion that marine mammal mortality would increase.

The seven pinniped species that are found in the Gulf of Alaska are all protected by the Marine Mammal Protection Act of 1972. All seven species are believed to be at the level of their optimum sustainable population as defined under the Marine Mammal Protection Act, so that permits for their taking may be issued under carefully limited circumstances. Because groundfish trawl operations necessarily involve conflict with pinnipeds it is necessary for persons proposing to engage in such operations to obtain certificates of inclusion under a general permit for the taking of marine mammals incidental to commercial trawling operations. The general permit has been issued under regulations implementing the Marine Mammal Protection Act.

In contrast with the problems experienced with pinnipeds, groundfish trawl operations in the Gulf of Alaska do not appear to have resulted in physical conflict with or harassment of cetaceans, including the eight species of great whales that are protected under the Endangered Species Act of 1973, even though they are known to occur either frequently or occasionally in the Gulf of Alaska.

2. Direct Stress to Marine Birds

Harvesting operations during the Shelikof Strait pollock fishery may cause marine birds, including those protected by the Migratory Bird Treaty Act, to avoid areas that they might otherwise frequent. Such displacement of these birds would not appear to be a prohibited taking for purposes of the Migratory Bird Treaty Act, but its long-term effect on them is largely unknown. Birds protected under this act may occasionally and inadvertently be captured in trawl gear in the course of their feeding activities. Any such capture that is intentional or negligently caused by fishermen would be a violation of the Migratory Bird Treaty Act.

3. Food Competition with Marine Mammals and Birds

Many of the marine mammals and birds that occur in the Central Regulatory Area feed on juvenile and adult pollock and also on the same animals that pollock itself feeds on. Harvesting an additional amount of pollock removes a certain biomass that marine mammals and birds may have consumed, assuming that the pollock biomass has not increased. On the other hand, a certain biomass of other forms of marine life that would have been consumed by pollock would remain in the ocean, absent the predation by pollock, and may contribute to the well being of marine mammals and birds. This predator/prey relationship is not well understood but the effect on marine mammals and birds as a result of the proposed increase in the pollock OY is expected to be insignificant.

Harvest of pollock is not expected to cause a decline in the sea lion population through competition for the pollock resource for two reasons. First, estimates of the pollock MSY includes consumption of pollock by marine

mammals and marine birds. Second, sea lions are known to move extensively throughout the Gulf of Alaska, particularly west toward Unimak Pass. Fishing levels have not increased in the Western Regulatory Area, so pollock availability for sea lions in these areas has remained unaffected.

4. Environmental Effects on the Marine Environment Resulting from an Increase in Dumping of Pollock Wastes

An increase in the pollock harvest would have some effect on the marine environment as processing wastes are dumped into the ocean. Because these wastes are composed primarily of the discarded remains of harvested pollock, they are not believed to be harmful to the ecosystem. In fact, such remains likely provide nutrients for other sea life, although their amount is so small in comparison to the ecosystem of the region as a whole that the net effect of their discharge is probably negligible.

(Alternative 1) Increase the pollock OY in the Central Regulatory area from 95,200 mt to 191,000 mt.

Under this alternative, each of the potential effects of the fishery discussed under the proposed action would be magnified. The potential for the incidental catch and mortality of marine mammals and birds would increase. Further competition with marine mammals and birds for food would occur. Dumping of additional processing wastes into the marine environment would result. Because fishermen can actively avoid sea lions, however, this alternative would not necessarily result in an actual significant change in marine mammal mortality. Marine bird mortality could increase but likely would be insignificant.

(Alternative 2) Maintain the pollock OY in the Central Regulatory Area at its present level of 95,200 mt.

Under this alternative, no change in those effects of the fishery discussed under the proposed action would be expected, assuming stable conditions in the ecosystem. The potential for the incidental catch and mortality of marine mammals and birds, competition by fishermen with marine mammals and birds for food, and effects on the environment from dumping processing wastes into the ocean should remain the same.

B. Set the OY for sablefish throughout the Gulf of Alaska at 75 percent or less, respectively, of the EY. (Third proposed action and Alternative 2 to that action).

Sablefish is a target species in the foreign and U.S. longline fisheries. The types of effects associated with the trawl fisheries discussed above under the first proposed action are not significant in the longline fisheries. Incidental catch and mortality of marine mammals and birds due to longline fishing would be infrequent. Competition by fishermen with marine mammals and birds for food and the effects of dumping processing wastes into the ocean would depend on the amount of sablefish being harvested. Because the amount of sablefish available under the proposed action or alternative 2 would be reduced, all potential effects on marine mammals and birds should also be reduced.

(Alternative 1) Maintain the sablefish OY at its overall level of 12,300 mt.

Under this alternative no change is expected in the potential for the incidental catch and mortality of marine mammals and birds, competition by fishermen with marine mammals and birds for food, and effects in the marine environment of dumping processing wastes into the sea.

C. Impacts of the proposed actions and alternatives considered for each of the other management measures are largely related to socioeconomic benefits and costs resulting from management of the fisheries to the extent that improved management contributes to the conservation and management of the fish stocks. These impacts are addressed in the Regulatory Impact Review/Initial Regulatory Flexibility Analysis (RIR/IRFA) prepared for these measures.

Impacts on the Socioeconomic Environment

All of the proposed actions would have a favorable socioeconomic impact on the U.S. groundfish fishery. The RIR/IRFA discusses fully the socioeconomic impacts of the proposed actions and alternatives.

Effects on Endangered Species and on the Alaska Coastal Zone

For reasons discussed above, none of the alternatives would constitute an action that "may affect" endangered or threatened species or their habitat within the meaning of the regulations implementing Section 7 of Endangered Species Act of 1973. Thus, consultation procedures under Section 7 will not be necessary on the proposal and its alternatives.

Also for the reasons discussed above, none of the alternatives would be a federal action directly affecting the Alaska Coastal Zone within the meaning of Section 307(c)(1) of the Coastal Zone Management Act of 1972 and its implementing regulations.

FINDINGS OF NO SIGNIFICANT ENVIRONMENTAL IMPACT

For the reasons discussed above, it is hereby determined that neither approval and implementation of Amendment 11 nor any of the reasonable alternatives to that action would significantly affect the quality of the human environment, and that the preparation of an environmental impact statement on these actions is not required by Section 102(2)(C) of the National Environmental Policy Act or its implementing regulations.

_____ _____

Assistant Administrator for Fisheries, NOAA Date

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Attachment--List of marine mammals and their seasons of occurrence in the Gulf of Alaska (lat 53°N to coast, long 133° to long 157°W). C = regularly present, A = greatest abundance, R = rare visitor, - = not known or expected to occur, ? = no recent data available. (From Morris et al, 1983).

Common Name	Species Name	Season Winter Jan-Mar	Spring Apr-Jun	Summer Jul-Sep	Autumn Oct-Dec
Cetaceans					
Right whale[1]	Balaena glacialis	-	R	R	R
Fin whale	Balaenoptera physalus	R	C	A	R
Sei whale	Balaenoptera borealis	R	A	C	R
Blue whale[1]	Balaenoptera musculus	-	R	R	R
Minke whale[2]	Balaenoptera acutorostrata	?	A	A	?
Humpback whale	Megaptera novaeangliae	R	C	A	C
Gray whale	Eschrichtius robustus	A	C	R	C
Sperm whale	Physeter macrocephalus	-	C	C	C
Killer whale[2]	Orcinus orca	C	C	C	C
Short-finned pilot whale	Globicephala macrorhynchus	-	-	R	-
Dall's propoise[2]	Phocoenoides dalli	C	C	C	C
Harbor porpoise[2]	Phocoena phocoena	C	C	C	C
Pacific white-sided dolphin	Lagenorhynchus obliquidens	R	C	A	R
Risso's dolphin	Grampus griseus	R	R	R	-
Northern right whale dolphin	Lissodelphis borealis	-	-	R	-
Giant bottlenose whale	Berardius bairdii	?	R	R	?
Goosebeak whale[2]	Ziphius cavirostris	C	C	C	C
Bering Sea beaked whale	Mesoplodon stejnegeri	?	?	?	?
White whale[2]	Delphinapterus leucas	C	C	C	C
Carnivores					
Northern sea lion[2]	Eumetopias jubatus	C	C	C	C
Northern fur seals	Callorhinus ursinus	A	C	C	A
California sea lion	Zalophus californianus	-	-	R	-
Harbor seal[2]	Phoca vitulina	C	C	C	C
Northern elephant seal	Mirounga angustirostris	-	R	R	-
Walrus	Odobenus rosmarus	-	R	R	R
Sea otter[2]	Enhydra lutris	C	C	C	C

1 - Historically abundant seasonally.
2 - Resident.

REGULATORY IMPACT REVIEW/INITIAL REGULATORY FLEXIBILITY ANALYSIS OF REGULATIONS IMPLEMENTING AMENDMENT 11 TO THE FISHERY MANAGEMENT PLAN FOR THE GROUNDFISH OF THE GULF OF ALASKA

ADOPTED BY

THE NORTH PACIFIC FISHERY MANAGEMENT COUNCIL

U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Alaska Region

April 1983

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I. INTRODUCTION

The incumbent Administration's policy on the development and issuance of regulations is established by Executive Order 12291. The main objectives of that policy are to reduce the burdens imposed by existing and future regulations, to increase agency accountability for regulatory actions, and to provide for Presidential oversight of the regulatory process, minimize duplication and conflict of regulations, and insure well-reasoned regulations. Under these guidelines each agency, to the extent permitted by law, is expected to comply with the following requirements:

1. Administrative decisions shall be based on adequate information concerning the need for and consequences of proposed government action;
2. Regulatory action shall not be undertaken unless the potential benefit to society from the regulation outweighs the potential cost to society;
3. Regulatory objectives shall be chosen to maximize the net benefit to society;
4. Among alternative approaches to any given regulatory objective, the alternative involving the least net cost to society shall be chosen; and
5. Agencies shall set regulatory priorities with the aim of maximizing the aggregate net benefit to society, taking into account the condition of the particular industries affected by regulations, the condition of the national economy, and other regulatory actions contemplated for the future.

In compliance with Executive Order 12291, the National Marine Fisheries Service (NMFS) requires the preparation of a Regulatory Impact Review (RIR) for all regulatory actions or for significant DOC/NOAA policy changes that are of public interest. The RIR: (1) provides a comprehensive review of the level and incidence of impacts associated with a proposed or final regulatory action; (2) provides a review of the problems and policy objectives prompting the regulatory proposals and an evaluation of the major alternatives that could be used to solve the problems; and (3) ensures that the regulatory

agency or council systematically and comprehensively considers all available alternatives so that the public welfare can be enhanced in the most efficient and cost effective way.

The RIR also serves as the basis for determining whether any proposed regulations are major under criteria provided in Executive Order 12291 and whether or not the proposed regulations will have a significant economic impact on a substantial number of small entities in compliance with the Regulatory Flexibility Act (P.L. 96-354). The primary purpose of the Regulatory Flexibility Act is to relieve small businesses, small organizations, and small governmental jurisdictions (collectively, "small entities") of burdensome regulatory and recordkeeping requirements. This Act requires that if regulatory and recordkeeping requirements are not burdensome, then the head of an agency must certify that the requirement, if promulgated, will not have a significant economic effect on a substantial number of small entities.

This RIR analyzes the impacts of certain management measures that were approved by the North Pacific Fishery Management Council (Council) at its March 26-27, May 19-20, and July 21-22, 1982 meetings. These measures regulate fishing for groundfish in the Gulf of Alaska under the fishery management plan for the Groundfish of the Gulf of Alaska. The approved measures would:

1. Increase the pollock optimum yield (OY) in the Central Regulatory Area from 95,200 mt to 143,000 mt.

2. (a) Reduce the sum of the optimum yields for sablefish in Federal waters of the Gulf of Alaska regulatory areas to 7,730-8,980 mt from 12,300 mt and apportion it among the regulatory areas/districts.
   (b) Divide the Yakutat district of the Eastern Regulatory Area into two districts--East Yakutat (137°-140° W. longitude) and West Yakutat (140°-147° W. longitude) for purposes of better managing sablefish.
   (c) Clarify the management object for the sablefish fishery to benefit domestic fishermen.

3. (a) Establish a framework procedure whereby the Regional Director may annually determine the domestic annual processing (DAP) and the joint venture processing (JVP) components of domestic annual harvest (DAH) for each species OY.

   (b) Eliminate the domestic nonprocessed (DNP) component of DAH that was apportioned for bait and personal consumption, and combine the numerical amounts with DAP.

   (c) Modify the reserve apportionment procedure whereby the Regional Director may reapportion reserves and/or surplus DAH to total allowable level of foreign fishing (TALFF) on three dates or on such other dates that he determines are necessary.

4. Delegate to the Regional Director the authority to impose season and/or area restrictions on foreign nations for conservation reasons.

5. Require domestic fishermen to advise fishery management agencies in Alaska by radio or telephone of their interim departure before leaving Federal pr State waters to land fish outside Alaska.

II. OBJECTIVES OF THE MANAGEMENT MEASURES

The above management measures are consistent with, and contribute to, the management objectives of the FMP, which are:

1. Rational and optimal use, in both the biological and socioeconomic sense, of the region's fishery resources as a whole;

2. Protection of the Pacific halibut resource;

3. Provision for the orderly development of domestic groundfish fisheries, consistent with A and B, at the expense of foreign participation; and

4. Provision for foreign participation in the fishery, consistent with A, B, and C, to take that portion of the optimum yield not utilized by domestic fishermen.

III. PROBLEMS NECESSITATING THE MANAGEMENT MEASURES

A. Why increase the pollock OY in the Central Regulatory Area?

The pollock OY in the Central Regulatory Area is being increased to accommodate a rapidly expanding domestic fishery in an area known as Shelikof Strait north of Kodiak Island. This fishery is targeting on roe pollock for delivery to foreign processing vessels in joint ventures. These joint ventures have harvested increasing amounts of pollock in recent years--1,900 mt in 1980, 17,000 mt in 1981, and more than 75,000 mt in 1982. Commitments by foreign processors in 1983 will likely result in a harvest in excess of 100,000 mt.

The harvestable biomass of pollock in the Central Regulatory Area will support a harvest of 143,000 mt. Results from analyses of age classes for the years 1976-1981 for the Western Regulatory Area and Central Regulatory Area, indicate an increasing trend in exploitable biomass and harvestable surplus. The proposed optimum yield is the midpoint of the maximum sustainable yield (MSY), estimated for the Central Regulatory Area to be 95,200 mt-191,000 mt.

B. Sablefish Management Changes

1. Why reduce the overall sablefish optimum yield in the Gulf of Alaska?

The condition of the sablefish resource in the Gulf of Alaska is generally depressed throughout the Gulf of Alaska as evidenced by analyses of foreign and domestic catch data and magnitudes of recent catches compared to those of previous years. Whereas sablefish were once so abundant that total annual catches well in excess of 20,000 metric tons were possible (the largest total catch was 36,505 mt in 1972), total catches since the FMP was implemented in 1978 have been comparatively small, ranging from to 7,461 mt in 1982 to 9,763 mt in 1981 (Table 1). These recent catches were small even though the total OY for the Gulf of Alaska during the years 1978-1982 was 12,300, excluding 700 mt from the inside waters of southeast Alaska.

Table 1. All nation catches (mt) of sablefish in the Gulf of Alaska from 1978 to 1982.

Year	U.S.[1/]	Japan	U.S.S.R.	ROK	TOTAL
1978	1,813	6,458	4	665	8,940[2/]
1979	2,341	5,919	152	759	9,226[2/]
1980	2,204	4,831	416	891	8,342[3/]
1981	1,783	6,911	-	1,062	9,763[3/]
1982	1,804	4,933	-	724	7,461

1/ Includes catches from the Southeast Inside district

2/ Total includes 55 mt by Mexico

3/ Total includes 4 mt by Poland

Most estimates of the condition of the sablefish resource until 1977 were based on analyses of catch per unit of effort (CPUE) data from the Japanese North Pacific longline fishery. Prior to 1974 CPUE was generally high (greater than 200 kilograms per 10 hatchi)[1/] in all International North Pacific Fishery Commission (INPFC) areas. CPUE declined in 1975 to as low as 154 kg/hatchi in the Shumagin area and was down to 185 kg/hatchi in other areas. CPUE increased in 1976 but declined an average 25 percent from 1976 to 1977 throughout the Gulf of Alaska. On the basis of this decline the EY for the Gulf of Alaska was determined to be 14,000 mt, of which 8,540 mt were in the area west of 140° W. longitude.

Japanese longliners shifted their effort to Pacific Cod after 1977 in response to new fishing regulations; CPUE data are therefore not available for the foreign sablefish fishery after 1977.

A new data series became available, beginning in 1977, from U.S. observers on Japanese longline vessels fishing for sablefish deeper than 500 meters. These data indicated that CPUE in the Shumagin area through the Yakutat area declined 25 percent from 1977 through 1979 but recovered in 1980 to about the

1/ A hatchi is a unit of Japanese longline gear.

1977 level. Also contributing to the data base is a Japan-U.S. cooperative longline survey, beginning in 1978. Results of this survey also suggest an increase in sablefish stocks in 1980, remaining at about the same level in 1981.

The 1980-1981 CPUE for the Japanese longline fishery showed an increase, which was supported by the results of the 1981 Japan/U.S. cooperative longline survey. However, the average sizes of sablefish in the Japanese longline fishery was less than 60 centimeters, whereas the average size during 1969-1979 was about 65 centimeters and was relatively stable. The 1981 increase in CPUE, therefore, is attributed to the increased availability of small fish. If the estimated 8,540 mt EY (Table 2) west of 140° W. longitude were correct, some rebuilding of stocks in the large size categories should have occurred. Evidence is insufficient, however, to justify modifying the EY west of 140° W. longitude.

In the area east of 140° W. longitude the estimation of EY is made difficult due to the absence of foreign catch data (foreign longlining has been prohibited in this area since the FMP was implemented on December 1, 1978). Based on NMFS pot index survey data for 1980 and 1981, EY is believed to be a range of, at least, 1,290 mt and, at most, 2,580 mt east of 137° W. longitude.

The Council has determined that sablefish stocks should be conserved to allow them to rebuild at a faster rate than would occur if they were harvested at the EY level. Accordingly, the OY is set equal to the ABC, which is equal to approximately 75 percent of the EY.

Table 2. Equilibrium yield and optimum yields (= ABC's) in the regulatory areas and districts of the Gulf of Alaska.

	Western	Central	West Yakutat	East Yakutat	Southeast		Total
EY (mt)	2,225	4,075	2,240	1,135-1,510	1,290-2,580		10,965-12,630
					Outside	Inside	
OY (mt)	1,670	3,060	1,680	850-1,135	470-1,435	500	8,230-9,480

2. Why divide the Yakutat district of the Eastern Regulatory Area into two districts to better manage sablefish?

Sablefish are known to migrate across long distances but are believed to do so quite slowly. Fishing intensively in a small area to achieve an allocation from a relatively larger allocation area could, therefore, result in overfishing local sablefish stocks. Under the current management regime a single OY exists for all of the Yakutat district, which is between 137° and 147° W. longitudes. Foreign fishing, however, is restricted in the Yakutat district to an area west of 140° W. longitude. Foreign fishermen, then, can attempt to harvest their entire allocation from an area smaller than the allocation area. Domestic fishermen may also attempt to fish for the entire DAH from a smaller area. By dividing the Yakutat district into two districts, which results in separate OY's for each district, fishing effort would be spread out and local stocks would be more conservatively managed.

3. Why clarify the management objective in the FMP as it concerns sablefish?

The Council intends that sablefish should be managed to benefit U.S. fishermen throughout the Gulf of Alaska by providing more and larger sablefish in the fishery. This clarification is Council policy and is not analyzed in this RIR.

C. Domestic Annual Harvest Management Changes

1. Why establish a framework procedure that would allow the Regional Director to annually determine DAP and JVP figures for each groundfish species?

The Council presently is able to adjust the DAP and JVP components of DAH for any species by plan amendment, a process that can consume most of a single year. To the extent, then, that the industry must be able to depend on, and plan for, a stated amount of fish within biological limits, the present amendment process, with its attendant delays is a "cost" to the industry. In 1982, for example, the JVP for pollock in the Central Regulatory Area, which was increased by the entire reserve, was insufficient. Additional interest in

groundfish may be expected when other, more traditional fisheries fail to provide acceptable profits. In 1982, for example, domestic fishing for king crab in Bristol Bay was poor for a large number of crab fishermen due to depressed stocks, a condition that will be repeated in 1983 and possibly several years more.

Future specifications of DAP's and JVP's to support domestic operations and joint ventures, respectively, are expected to change and the amount of change could well be unpredictable. The only existing procedure to allocate groundfish between DAP and JVP is by amending the FMP, a procedure which is too slow, requiring in the past sometimes an entire year. This procedure is no longer acceptable.

A procedure that allows the Regional Director to allocate groundfish in time to accommodate domestic needs is required. Under the proposed action, initial DAP and JVP amounts would equal the amounts harvested by domestic fishermen during the previous fishing year plus any additional amounts that are necessary to satisfy expected needs for the new fishing year. Under the proposed action, the Regional Director, upon recommendation from the Council, would publish proposed apportionments of each OY between DAP, JVP, and TALFF sufficiently prior to a new fishing year, which starts each January 1. Based on comments received, he would publish final apportionment figures before January 1 of each year. Hence, planning by domestic and foreign fishermen would be enhanced on the basis of timely apportionments.

The U.S. groundfish fishery has only begun to be significant in terms of catches in the Gulf of Alaska. In 1980, the total catch was 5,662.3 mt (Table 3), most of which was used for bait in the crab fisheries, except for 1,573.8 mt of sablefish and 227.9 mt of rockfish, including Pacific ocean perch that were taken with longline gear in the Central and Eastern Regulatory Areas and used for food. Catches increased markedly in 1981 and 1982 as a result of joint ventures with the Republic of Korea (1981 and 1982), and with Japan (1982). These joint ventures targeted on spawning concentrations of pollock in Shelikof Strait in the Central Regulatory Area.

JVP and DAP amounts are currently established in the FMP and are implemented by the amendment process. These amounts are determined by the Council on the basis of information obtained from the fishing industry, either by industry testimony at Council meetings or by surveys of the industry conducted by NMFS. Although reserves equal to 20 percent of the species OY's are available for reapportionment to the U.S. industry, the sum of the DAH components and the reserve for any species may not be sufficient to provide for U.S. fishing needs.

Table 3. U.S. groundfish catches (mt) in the Gulf of Alaska in 1980, 1981, and 1982.

		1980	1981	1982
Pollock	JVP	1,135.5	16,836.2	74,294.3
	DAP	862.2	782.7	1,271.6
	TOTAL	1,997.7	17,618.9	75,565.9
Sablefish	JVP	20.3	0.4	1.0
	DAP[1/]	1,553.5	1,247.8	1,801.6
	TOTAL	1,573.8	1,248.2	1,802.6
Pacific cod	JVP	465.6	57.9	194.1
	DAP	508.0	990.5	4,943.8
	TOTAL	973.6	1,048.4	5,137.9
Flounders	JVP	208.8	17.7	7.9
	DAP	139.8	485.7	113.8
	TOTAL	348.6	503.4	121.7
POP	JVP	19.9	0.0	3.0
	DAP	3.9	1.3	1.6
	TOTAL	23.8	1.3	4.6
Rockfish	JVP	8.2	0.0	0.0
	DAP	195.9	304.7	165.2
	TOTAL	204.1	304.7	165.2
Atka Mackerel	JVP	3.2	0.0	0.0
	DAP	0.0	0.0	0.0
	TOTAL	3.2	0.0	0.0
Other Species	JVP	49.4	43.0	13.2
	DAP	482.2	193.9	89.3
	TOTAL	531.6	236.9	102.5
TOTAL	JVP	1,910.9	16,955.2	74,823.5
	DAP	3,751.4	4,006.6	8,386.9
	TOTAL	5,662.3	20,961.8	83,210.4

1/ Dressed Weight

2. Why eliminate the designation of DNP from DAH, combining the numerical amount with DAP?

Amounts designated as DNP that were used for bait and personal consumption are not specifically monitored. DNP amounts are presently designated only for Pacific cod and "other species." This measure is a minor modification of the DAP definition and is not analyzed in this RIR.

3. Why provide for reapportionment to TALFF of surplus DAH and/or reserves on additional dates considered necessary as well as on the three dates already provided for in the regulations?

This measure gives the Regional Director the latitude to reapportion to TALFF only those amounts of fish, which will not be harvested by domestic fishermen, in a time frame more reasonable to assure full utilization of the resources. This measure is a minor modification of existing DAH and reserve reapportionment procedures and is not analyzed in this RIR.

D. Why provide to the Regional Director the authority to impose on foreign nations season and/or area restrictions for conservation reasons?

Under the FMP and current implementing regulations the Regional Director already has the authority to impose season and/or area restrictions on domestic fishermen. This authority is consistent with national standard one of the Magnuson Fishery Conservation and Management Act (MFCMA)--"conservation and management measures shall prevent overfishing while achieving on a continuing basis, the optimal yield from each fishery"--and with the FMP's management objective number 1--"rational and optimal use, in both the biological and socioeconomic sense of the region's fishery resources as a whole." Lack of this same authority in managing the foreign fishery is inconsistent with the MFCMA and the FMP. Provision for this authority will make foreign fishing restrictions consistent with an existing restriction already in domestic regulations. No further analysis is included in the RIR.

E. Why require domestic fishermen who intend to land groundfish outside Alaska to advise management agencies by radio or telephone of their departure from Alaska waters?

The Alaska Department of Fish and Game and the Alaska Region of the National Marine Fisheries Service monitor the domestic groundfish fishery and have a need for timely receipt and analyses of catch data to prevent domestic quotas of groundfish from being exceeded, which could result in biological overfishing. The Region has an additional need for timely catch data in order to make rational decisions relative to apportioning reserves to DAP or JVP if amounts in these categories are insufficient. Large domestic catcher-processor vessels are capable of harvesting substantial portions from groundfish quotas for delivery outside Alaska. Knowledge of their catches prior to their leaving Alaska waters or knowledge of their departure in order to follow up on their reporting of catches at ports outside Alaska is essential to allow inseason groundfish management.

IV. ANALYSIS OF REGULATORY IMPACTS

A. INCREASE THE POLLOCK OY IN THE CENTRAL REGULATORY AREA FROM 95,200 MT TO 143,000 MT (Proposed Action).

COSTS

Risk of overfishing - The proposed OY is a 50 percent increase from its present level and is a 12 percent increase from the total 1982 U.S. and foreign pollock catches in the Central Regulatory Area of 127,570 mt (75,394 mt and about 52,176 mt, respectively), which is the highest annual catch in this area during the 1977-1982 period. The effects of harvesting this additional amount of pollock poses some risk of overfishing in that a degree of uncertainty exists, as with all estimates of exploitable biomass, in the accuracy of the data.

The pollock biomass in the Central Regulatory Area was estimated by NMFS from results of 1973 and 1975 bottom trawl surveys to be between 255,000 and

680,000 mt. This range is derived from an equation that uses a catchability coefficient (a measure of the catching ability of a trawl) of between 0.5 and 1.0. Using another equation that takes into account natural mortality, maximum sustainable yield is estimated from the biomass range to be between 95,000 and 191,000 mt.

The proposed OY is set conservatively, equal to about the midpoint of the MSY range, being 25 percent less than its upper end. The risk of overfishing is believed to be small because the proposed OY is well below the highest estimate of the MSY.

Impact on Prices - Assuming the entire 143,000 mt OY were caught, the 47,800 mt increase from the present OY of 95,200 mt represents only 5 percent of the 1982 U.S. and foreign pollock catch from the FCZ off Alaska and only 1.2 percent of the 1980 total worldwide pollock catch, which was about 3.9 million mt. The amount of pollock being made available by the proposed OY is likely too small to influence price at any level.

Foreign Fees - Of the proposed 143,000 mt OY, 5,000 mt will be apportioned initially to TALFF and 28,600 mt will be apportioned to reserves (an increase of 9,560 mt from the present 19,040 mt reserve). The reserve could be reapportioned later to TALFF in the event U.S. fishermen will not harvest it. Foreign nations must pay a poundage fee (dollars per mt) for amounts of groundfish they actually harvest.

Although the initial amount of pollock available to TALFF is only sufficient to accommodate a harvest incidental to other target species, foreign nations would be charged by the U.S. Government a total of $155,000 (Table 4) in poundage fees. In the event that the entire pollock reserve were reapportioned to TALFF and harvested by foreign nations, those nations would be charged an additional $886,600, or $1,651,680 less than the $2,538,280 they would have been charged had the proposed OY increase not been necessary and the present reserve (19,040 mt) and TALFF (62,840 mt) were harvested by foreign nations.

Under the proposed OY increase, the U.S. Government could receive in 1983 between $155,000 and $1,041,600, depending on how much reserve might be reapportioned to TALFF and actually harvested by foreign nations. In comparison to the 1982 foreign fee ($23/mt) that was received, estimated at $1,200,048 for 52,176 mt of pollock, the 1983 potential foreign fee ($31/mt) could be less than the 1982 foreign fee by an amount between $158,448 and $1,045,048, which would be a "cost" to the U.S. Government.

Table 4. Potential 1983 values of foreign fees to the U.S. government for TALFF's harvested in the Central Regulatory Areas

	1983 Poundage Fee ($/MT)	Initial TALFF (1,00 mt)	Potential Value (1,000 $)
Pollock	31	5.0	155.0
Pacific Cod	60	20.782	1,246.9
Flounders	23	10.64	244.72
Pacific Ocean Perch	97	5.065	491.3
Rockfish 1/	97	3.876	375.972
Thornyheads 1/	97	2.392	232.024
Sablefish	145	1.22	176.9
Atka Mackerel	17	15.589	265.013
Squid 1/	23	2.174	50.002
Other Species 1/	20	6.882	137.64
TOTAL POTENTIAL VALUE =			$3,375,471

1/ Gulf-wide species. TALFF's are estimated on the basis of proportion of 1982 catches in Central Regulatory Area to total 1982 Gulf of Alaska catches.

BENEFITS

Provide for U.S. fishing expansion - Segments of the U.S. fishing industry interested in the pollock fishery may plan their operations and secure financial backing with the "guarantee" that access to a certain amount of fish will be made available to them by regulation. Initially, 109,400 mt of the proposed pollock OY is apportioned between fishermen delivering catches to U.S. floating and/or shorebased processors (domestic operations) and fishermen delivering to foreign processors at sea (joint ventures) based on expressed interest by, and surveys of, the industry. These amounts are 5,380 mt and 104,020 mt, respectively. The fact that these amounts are established by

regulation is an indication to the industry that, barring unforeseen closures for conservation reasons, an opportunity is being given to U.S. fishermen to harvest pollock in amounts at least equal to the above numbers and which could be increased by reapportionment from the reserve.

In 1982, the DAP and JVP amounts of pollock apportioned initially to U.S. fishermen for domestic operations and joint ventures, respectively, were 5,380 mt and 7,940 mt in the Central Regulatory Area. The initial reserve of 19,040 mt was later reapportioned to JVP, increasing it to 26,980 mt. Actual 1982 pollock catches in domestic operations and joint ventures were 1,229 mt and 74,166 mt, respectively. The amount caught in wholly domestic operations was used for bait and food, for which U.S. fishermen received approximately $0.35 to $0.40/pound. U.S. fishermen received about $0.065 per pound round weight for pollock caught in joint ventures.

The amount specified as DAP is not changed by this proposed measure. Because the reserve is increased by 9,560 mt (which could be entirely reapportioned to DAP), U.S. fishermen could receive additional exvessel revenues of between $7.4 and $8.4 million, if domestic operations harvested the entire reserve increase.

The amount specified as JVP is an increase of 77,040 mt over the final amount available by regulation in 1982, i.e. 26,980 mt. About 25 U.S. vessel operators are expected to participate in this fishery in 1983. Collectively, they could receive additional exvessel revenues of $11,036,750 if joint ventures harvest the entire increase, or about $440,000 per vessel operator. (Because joint ventures actually harvested 74,823 mt, worth about $10,719,140, the increase in potential exvessel revenues would be about $317,610). These potential increases in domestic revenues represent benefits attributable to the proposed action.

Future harvests by either joint ventures and/or wholly domestic operations could harvest the entire OY of 143,000 mt. At current joint venture prices of $143 per mt, the pollock OY could be worth about $20.4 million. At current prices of $881 per mt paid by U.S. processors, the pollock OY could be worth about $126.0 million.

Conservation of prohibited species - Foreign nations must return to the sea (discard) all prohibited species, including Pacific halibut, salmon, and crab. These species must be discarded from both foreign catches and joint venture catches. Because U.S. fishermen trawling for pollock in the Central Regulatory Area under joint venture agreements use off-bottom or pelagic trawls, fewer prohibited species are caught than the foreign nations that have been major harvesters in the Gulf of Alaska--Japan and South Korea--because they customarily utilize bottom trawls. During 1982 calendar January through October 1982, Japan and South Korea caught a total of 859.4 mt of Pacific halibut, 15.7 mt of salmon, 3.3 mt of king crab, and 6.0 mt of Tanner crab while catching 91,033.8 mt of groundfish (Table 5). During the period January through May 1982, joint ventures caught 2.5 mt of halibut, 2.7 mt of salmon, no king crab, and 0.2 mt of Tanner crab while catching 74,823 mt of groundfish.

Because the proposed OY increase is intended for joint ventures and the portion intended for foreign fishermen is small, a benefit would result to the extent that prohibited species would be con- served. The more pollock that are harvested in joint ventures, the fewer prohibited species would be caught, ceteris parabus.

Table 5. Trawl catches (mt) of prohibited species and groundfish[1/] by Japan and South Korea in the Central Regulatory Area during December 1982 and by joint ventures from January through May 1982.

	Groundfish	Pacific Halibut	Salmon	King Crab	Tanner Crab
Japan	63,621.7	547.2(0.9)	12.9(0.0)	0.2(0.0)	1.5(0.0)
South Korea	27,412.1	312.2(1.1)	2.8(0.0)	3.1(0.0)	4.5(0.0)
Total	91,033.8	859.4(0.9)	15.7(0.0)	3.3(0.0)	6.0(0.0)
Joint Ventures	74,823.5	2.5(0.0)	2.7(0.0)	0.0(0.0)	0.2(0.0)

1/ Percentage of prohibited species catches to groundfish catches are in parentheses.

(Alternative 1) INCREASE THE POLLOCK OY IN THE CENTRAL REGULATORY AREA FROM 95,200 MT TO 191,000 MT.

COSTS

Risk of Overfishing - Increasing the OY to 191,000 mt would be a 101 percent increase from the present OY level and a 50 percent increase over the total 1982 U.S. and foreign catch. Because 191,000 mt is ±B)^{3}x to the upper end of the MSY, no margin for error is provided to account for uncertainty in exploitable biomass estimates. The risk of overfishing could be increased. The likelihood that domestic and foreign fishermen would actually be interested in this amount is high, considering that U.S. fishermen intend to harvest at least 100,000 mt and foreign fishermen have, in the past, harvested about 70,000 mt for a total of about 170,000 mt. If overfishing were to occur, a resource with an exvessel value of about $20.4 million in joint ventures, or $126.0 million in domestic operations, based on an OY of 143,000 mt could he harmed.

Impact on Prices - Assuming the entire 191,000 mt were caught, the 95,800 mt increase from the present OY represents only 10 percent of the 1982 U.S. and foreign pollock catch (959,400 mt) from the FCZ off Alaska and only 2 percent of the 1980 worldwide pollock catch (3.9 million). Although more pollock would be available under this alternative and prices could be depressed, the additional amount is likely too small to significantly influence price.

BENEFITS

Foreign Fees - Under this alternative, an initial TALFF of 43,400 mt would be available, considering that the initial reserve would be 38,200 mt and assuming the initial DAH remained at 109,400 mt. This initial TALFF would be an increase of 38,400 mt over the proposed TALFF of 5,000 mt. The additional reserve would be a 9,600 mt increase over the proposed reserve. If foreign fishermen harvested all the initial TALFF, they would be charged about $1.3 million in foreign fees, which would be about $1.2 million more than that charged under the proposed action. If the entire initial reserve were apportioned to TALFF and were harvested by foreign fishermen, they would be

charged an additional $1.2 million in foreign fees. Possible benefits to the U.S. Government accrued by the alternative, as expressed in foreign fees, therefore could be between $1.3 million and $2.4 million.

Provide for U.S. fishing expansion - Under this alternative the total 38,200 mt of pollock reserve would be available to U.S. fishermen, which is 9,600 mt more than would be provided under the proposed action. A total of 186,000 mt of pollock would be available to U.S. fishermen if TALFF remained at the proposed 5,000 mt. Depending on whether domestic operations or joint ventures harvested the total amount, the 186,000 mt total would have an exvessel value of between $26.6 million in joint ventures (at $0.065/pound) and between $143 million and $164 million in domestic operations (at $0.35-40/pound). The 186,000 mt total is 48,000 mt more than the DAP, JVP, and reserve, which is 138,000 mt. The actual increase in potential benefits to U.S. fishermen under this alternative is the exvessel value of 48,000 mt which, depending on how much was harvested by domestic operations or joint ventures, could have a value of $6.9 million in joint ventures and between $37 million and $42 million in domestic operations.

Conservation of prohibited species - Foreign fishermen could be allocated a total of 81,600 mt of pollock if DAH remained at the proposed 109,400 mt and all of the initial reserve of 38,200 mt were allocated to TALFF. Considering the incidental foreign catch rate of 1.1 percent for Pacific halibut (Table 5) in the Gulf of Alaska groundfish fishery, foreign fishermen could catch about 898 mt of Pacific halibut if they were to harvest the entire 81,600 mt of available pollock. The incidental catch of salmon, king crab and Tanner crab would be negligible. Certain of these amounts could be considered a "cost" to U.S. fishermen to the extent that, depending on their fishing mortality when caught and discarded in the foreign fishery and their natural mortality, they would have had some value in the U.S. target fishery.

On the other hand, if the TALFF remains at 5,000 mt and the entire total of 186,000 mt initial DAH and initial reserve were harvested in joint ventures, the by-catch of Pacific halibut, salmon, and crab identified above would likely be caught in only negligible amounts. Hence, under this alternative U.S. target fisheries for halibut, salmon, and crab are conveyed a "benefit" if the additional pollock is allocated to DAH.

(Alternative 2) MAINTAIN THE POLLOCK OY IN THE CENTRAL REGULATORY AREA AT ITS PRESENT LEVEL OF 95,200 MT.

COSTS

Risk of Overfishing - Maintaining the OY at it's present level, which is equal to the low end of the MSY range, is the most conservative alternative among those considered. The effects of removing amounts of pollock equal to the present OY on the condition of pollock stocks are not fully known. The total 1982 catch of about 127,016 mt exceeded the conservative optimum yield by about 31,816 mt. The 1981 total catch of about 91,000 mt approximated the optimum yield for the first time, whereas, total catches during 1977-1980 ranged between 55,900 mt and 67,600 mt. Thus, recent annual catches approximated the present OY once and exceeded it once. Because the number of annual records is small, the surety that the risk of overfishing will not occur does not exist. Scientists of the Northwest and Alaska Fisheries Center in Seattle, Washington, who participated in the development of the proposed 143,000 mt OY, however, believe that the best available scientific information suggests the risk of overfishing is small. This small risk is a "cost" identified with this alternative.

Impact on Prices - no significant change in local, regional, or world prices paid for pollock is expected if the optimum yield remains the same. Most of the pollock is expected to be harvested in joint ventures for purposes of processing pollock roe, whereas previous years' catches by foreign fishermen were for purposes of processing surimi. Availability of pollock roe and surimi products on the world market, therefore, could change, but not significantly.

Foreign Fees - In previous years, foreign fishermen have fished in the Central Regulatory Area, primarily for pollock. For instance, in 1982 pollock contributed about 69 percent of Japan's total groundfish trawl catch of 48,000 mt and about 69 percent of the Republic of Korea's total groundfish trawl catch of 27,412 mt. Besides pollock, these catches in the Central Regulatory Area were composed of flounder, Pacific cod, sablefish, Atka mackerel, rockfish, Pacific ocean perch, squid, and "other species."

If the pollock OY were to remain at 95,200 mt, this amount would be insufficient to provide for a TALFF to support even a by-catch fishery. Hence, foreign fishermen may have to treat pollock as a prohibited species and may elect not to trawl in the Central Regulatory Area at all. As a result, not only would they not catch a 5,000 mt initial TALFF as they could under the proposed action, but would also not catch any amounts of other species. The resulting reduction in foreign fees charged by the U.S. government could equal $3.38 million (Table 4). This loss in poundage fees would be a cost to the U.S. government under this alternative.

Provide for U.S. fishing expansion - Under this alternative, the entire optimum yield for pollock would be available to U.S. fishermen. Joint venture fishermen, however, have indicated an interest to harvest an amount equal to the JVP under the proposed action, i.e. 104,020 mt. Accordingly, the optimum yield under this alternative would not provide an amount sufficient to accommodate U.S. fishermen. This 8,820 mt shortfall could have had an exvessel value, at $0.065/ pound, of about $1,126,553. This value would be a cost to U.S. fishermen under this alternative.

BENEFITS

Conservation of prohibited species - As identified in discussion under the proposed action, amounts of prohibited species caught by U.S. fishermen in joint ventures when targeting on pollock have been negligible. Under this alternative, if 95,200 mt of pollock were harvested instead of 104,020 mt, an insignificantly smaller amount of prohibited species would be caught, representing only a negligible benefit to U.S.-directed fisheries.

B. REDUCE SABLEFISH OPTIMUM YIELDS FOR THE REGULATORY AREAS AND DISTRICTS OF THE GULF OF ALASKA TO AN OVERALL LEVEL OF BETWEEN 7,730 AND 8,980 MT (Proposed Action).

COSTS

Under the FMP, the overall sablefish OY for the Gulf of Alaska is 12,300 mt (Table 6) excluding the Southeast Inside district, which lies entirely in

State of Alaska waters and is managed by the State. The total OY in Federal waters is apportioned on the basis of catch distributions among the Western Regulatory Area, Central Regulatory Area, Yakutat district, and the Southeast Outside district. Under the proposed action, the sablefish OY would be apportioned among the Western Regulatory Area, the Central Regulatory Area, the Yakutat district west of 140° W. longitude (west Yakutat), the Yakutat district east of 140° W. longitude (east Yakutat), and the Southeast Outside district.

Loss of Foreign Fees - Under the proposed action the overall initial sablefish TALFF for the Gulf of Alaska would be reduced by 722 mt, from 3,830 mt to 3,108 mt (Table 6). Under the FMP the initial sablefish reserve is 2,600 mt, whereas under the proposed action, the initial reserve would be 1,282 mt. If the entire initial reserve under the FMP or under the proposed action were reapportioned to TALFF, the potential foreign harvest would be 6,430 mt or 4,390 mt, respectively.

Table 6. Present and proposed apportionments (mt) of the sablefish OY's in the Gulf of Alaska.

	Western	Central	Yakutat	West Yakutat	East Yakutat	Southeast Outside	Total
OY							
Present	2,100	3,800	3,400			3,000	12,300
Proposed	1,670	3,060		1,680	850-1,133	470-1,435	7730-8978
Difference	430	740				1,565-2,530	3,322-4,570
JVP							
Present	170	220	200			90	680
Proposed	170	220		00	00	00	390
Difference	00	00				90	290
DAP							
Present	100	1,000	1,180			2,910[1/]	5,190
Proposed	100	1,000		530	850-1,133	470-1,435	2,950-4,200
Difference	00	00				1,475-2,440	990-2,240
Reserve							
Present	420	760	1,420				2,600
Proposed	334	612		336	N/A	N/A	1,282
Difference	86	148					1,318
TALFF							
Present	1,410	1,820	600				3,830
Proposed	1,066	1,228		814	N/A	N/A	3,108
Difference	344	592					722

1/ Includes 90 mt of TALFF that was not available to foreign nations due to foreign fishing restrictions.

Because the 1983 poundage fee for sablefish is $145/mt, the revenue to the U.S. government in fees collected under the FMP could be between $555,350 and $932,350, depending on how much of the reserve were reapportioned to TALFF and how much of the final TALFF was harvested. The revenue from fees collected under the proposed action could be between $450,660 and $636,550, depending on the amount of reserve reapportioned and the extent of the harvest. Under the proposed action then, the U.S. government could lose as much as $481,690 in foreign fees. Any amount up to this value would be a "cost" under the proposed action.

Preliminary data indicate the total 1982 foreign sablefish harvest to be 5,598 mt, which was 94 percent of the final available TALFF of 5,918 mt. The fact that the total foreign sablefish catch was less by 6 percent of the total TALFF available is attributed to the reduced availability of sablefish. This harvest represents $811,710 in foreign fees to the U.S. government. The foreign fee value of the actual 1982 catch compared to the possible range of values (450,660-636,550) under the proposed action suggests that the actual "cost" would be between $175,160 and $361,050.

Short-term Reduction in Gross Revenues for U.S. Fishermen - Under the proposed action the JVP and DAP specifications in the Western and Central Regulatory Areas are unchanged. No costs or benefits are involved. In Districts of the Eastern Regulatory Area, excluding the Southeast Inside District, the overall proposed DAP would be reduced by 2,240 mt, from 4,090 mt to 1,850 mt. The proposed JVP would be reduced from 290 mt to zero. The proposed reserve, which would only be specified for the West Yakutat District because all foreign fishing elsewhere in the Eastern Regulatory Area is currently prohibited, would be reduced by 1,084 mt, from 1,420 mt to 336 mt.

If all the reserve under the FMP were reapportioned to the current combined DAP's in the Yakutat and Southeast Outside District, the potential harvest by domestic operations would be 5,510 mt. If the proposed reserve were reapportioned to the proposed DAP in the West Yakutat District and this sum were combined with the proposed DAP in East Yakutat and Southeast Outside Districts, the potential harvest would be between 2,186 mt and 3,436 mt. The potential harvest in domestic operations is therefore reduced by 2,074-3,324 mt under the proposed action.

If all the reserve under the FMP were reapportioned to the current combined JVP's in the Yakutat and Southeast Outside District the potential harvest in joint ventures would be 1,710 mt. Because no JVP's are specified under the proposed action, but a single reserve exists in the proposed West Yakutat district that could be reapportioned to JVP the potential harvest in joint ventures would be 336 mt, which is a reduction of 1,374 mt under the proposed action.

Exvessel prices paid to U.S. fishermen fishing in domestic operations in 1982 were approximately $0.85 for large sablefish, western cut, i.e. those five pounds and larger, and $0.42½ for smaller sablefish, i.e. those between three and five pounds. The percent recovery for western cut sablefish is about 70 percent of round weight. The exvessel price paid for sablefish to U.S. fishermen fishing in joint ventures in 1982 was about $.06/pound round weight.

Based on these 1982 prices, the potential exvessel value of sablefish harvested in domestic operations under the FMP could be between $2,682,000 and $7,226,000 (Table 7), depending on the size of fish caught and the amount of the harvest. The potential exvessel value under the proposed action could be between $1,213,000 and $2,866,000.

The potential exvessel value of sablefish harvested in joint ventures under the FMP could be between $38,000 and $226,000 depending on the amount of the harvest. The potential exvessel value under the proposed action could be between zero and $226,000.

Under the proposed action, therefore, the potential reduction in exvessel gross revenue in domestic operations could be between $1,469,000 and $4,360,000. The potential reduction in joint venture revenue could be $38,000. These potential reductions represent "costs" to U.S. fishermen under the proposed action.

Table 7. Potential exvessel value to U.S. fishermen for sablefish caught in the Eastern Regulatory Area, either in domestic operations or in joint ventures, under the FMP and under the proposed action.

	Available amounts(1,000lb.)		Potential value($1,000) Small 42.5¢/lb		Large 85¢/lb	
	FMP	Proposed	FMP	Proposed	FMP	Proposed
DAP[1/]	6,310	2,854	$2,682	$1,213	$5,364	$2,426
DAP + Reserves	8,501	3,372	$3,613	$1,433	$7,226	$2,866

			Potential Value at 6¢/lb($1,000)	
			FMP	Proposed
JVP[2/]	639	0	$ 38	$ 0
JVP + Reserves	3,769	3,769	$226	$226

1/ Amounts are in pounds dressed weight, Western Cut (= 0.70 x round weight)
2/ Amounts are in pounds round weight

BENEFITS

Under the FMP, the Gulf of Alaska sablefish resource could sustain an average annual harvest of 22,000-25,000 mt over a reasonable length of time, under current environmental conditions. This range is the maximum sustainable yield (MSY) for sablefish. Setting the sablefish OY less than EY should promote the rebuilding of sablefish stocks to levels approximating the MSY. Because sablefish are of special importance to U.S. fishermen, any improvement in sablefish stock conditions is a benefit to U.S. fishermen. The length of time required for the condition of sablefish to improve to a level that a would produce MSY is unknown. Too much depends on environmental factors and other factors that induce changes in natural mortality (e.g. changes in predator/prey relationships).

of sablefish in west Yakutat could be between $496,451-$934,496 and $811,192-$1,526,931.

Between 62 and 69 percent of the Yakutat District DAP is allocated to east Yakutat. The potential exvessel value of sablefish in east Yakutat could be between $796,295-$1,498,729 and $1,063,154-$2,001,232. The Council intends to encourage U.S. fishermen to spread their effort between these two districts according to sablefish availability. Chances of too much effort on stocks in these two districts would be lessened, which reduces the chances of overfishing these stocks.

Reports of sablefish landings and analyses of catches and effort from those two areas will enhance the data base with which to better manage this fishery. Successful management and maintenance of existing stock levels would contribute to the potential values described above, depending on market conditions.

(Alternative 1) MAINTAIN THE CURRENT YAKUTAT DISTRICT AS A SINGLE MANAGEMENT DISTRICT.

COSTS

Under this alternative chances of local overfishing would increase because U.S. fishermen could concentrate their effort in the Yakutat District east of 140° W. longitude to achieve the DAP rather than expend extra fuel and time to travel to new fishing grounds west of 140° W. longitude.

Without the proposed district division, overfishing could occur and impede the recovery of sablefish stocks, which would be inconsistent with the Council's proposed management objective for sablefish. To the extent that overfishing could reduce future potential exvessel revenues, which are approximated by the values described above, would be costs under this alternative.

BENEFITS

No benefits are identified under this alternative.

D. ESTABLISH A FRAMEWORK PROCEDURE THAT ALLOWS THE REGIONAL DIRECTOR TO APPORTION ANNUALLY EACH GROUNDFISH SPECIES OY TO COMPONENTS OF DAP, JVP, AND TALFF (Proposed Action).

COSTS

No costs are identified with this proposed action. If this action were not taken, then benefits identified below would either not occur or, if they occurred, would have done so owing to results of other management measures.

BENEFITS

Amounts of groundfish that domestic operations and joint ventures will harvest are difficult to determine beyond a year, because groundfish fishing has tended to be opportunistic, taking advantage of slight profit margins and high volume catches when variable costs, e.g. fuel costs, would allow acceptable revenues to be made. Estimates of harvests two or more years in the future are highly speculative and may well prove erroneous as both input and output market conditions change. Actual harvests may be larger or smaller than annual estimates.

In 1982, harvests of pollock in the Central Regulatory Area increased markedly beyond amounts that are provided for in the FMP and implementing regulations. Surveys of the industry justify the marked increase in the pollock JVP for 1983. Whether U.S. fisheries for other groundfish species expand significantly in succeeding years will depend, in part, on U.S. policy toward foreign nations that participate in joint ventures, foreign nations' endeavors to increase their participation, local, national, and international market demand for groundfish, fuel costs, development of infrastructures (e.g. docks) that would serve to benefit domestic operations.

As growing markets provide economic incentives to U.S. fishermen to increase their effort in the Gulf of Alaska, substantial revenues to the industry could be realized. For example, the potential 1983 exvessel values to U.S. fishermen fishing in wholly domestic operations or joint ventures if they were to harvest all the DAP and JVP specified for each species could be between $11.8 million and $20.9 million in domestic operations and about $17 million from joint ventures (Table 8). Any harvests of reserves would increase these amounts.

Table 8. Potential 1983 DAP and JVP groundfish catches (mt) and their exvessel values in the Gulf of Alaska.

		Amount/Exvessel Value 1983		
		$Price/mt[1/]	mt	$1,000
Pollock	DAP	771- 881	6,100	4,703- 5,374
	JVP	143	111,290	15,914
Sablefish	DAP[2/]	881-1,763	2,950- 4,200	2,600- 7,405
	JVP	143	390	56
Pacific cod	DAP	418- 881	7,000	2,926- 6,167
	JVP	143	3,000	429
Flounders	DAP	220	1,300	286
	JVP	143	1,880	269
Rockfish	DAP	330- 551	700	231- 386
	JVP	143	200	29
POP	DAP	330- 551	620	205- 342
	JVP	143	1,480	212
Thornyhead Rockfish	DAP	330- 551	6	2- 3
	JVP	143	0	0
Squid	DAP	771- 881	0	0
	JVP	143	150	21
Atka Mackerel	DAP	771- 881	0	0
	JVP	143	2,070	296
Other Species	DAP	771- 881	1,100	848- 969
	JVP	143	620	89
Total	DAP		19,776- 21,026	$11,800-20,932
	JVP		121,080/	$17,315

1/ Based on 1982 prices.
2/ Based on figures proposed by Amendment 11.

The proposed framework method that would allow the Regional Director to set the components of DAH within a relatively short time frame would be a benefit to the fishing industry to the extent that planning is enhanced by certainty about the availability of fish stocks. Securing loans to fund fishing operations or establishing business agreements (e.g. joint ventures) may be aided by this proposed action. Any such enhancement is a benefit under this proposed action.

(Alternative 1) ESTABLISH DAP, JVP, AND TALFF FOR EACH GROUNDFISH SPECIES BY FMP AMENDMENTS.

COSTS

This alternative is the present system for apportioning each species' OY between DAP, JVP, reserve, and TALFF. This system, which requires each apportionment to be approved by the Secretary of Commerce, is not responsive to shifts in market conditions and needs of the U.S. fishing industry. Approvals by the Secretary of Commerce and implementation of final regulations can require many months to accomplish.

When circumstances occur that require more fish be made available to U.S. fishermen, the Secretary of Commerce may request the Secretary of State to withhold unapportioned amounts of TALFF that were designated to be allocated to foreign nations. These amounts, still designated as TALFF, are thus made available to U.S. fishermen.

Such a procedure disrupts early planning by foreign nations that had counted on reliable allocations when scheduling ship time and effort.

This alternative increases uncertainty for both the U.S. and foreign fishing industries. Such uncertainty and any adverse effects it may have in meeting the objectives of the FMP are costs under this alternative.

BENEFITS

No benefits are identified with this alternative.

E. REQUIRE U.S. FISHERMEN TO ADVISE MANAGEMENT AGENCIES IN ALASKA BY SHIP-TO-SHORE RADIO OR BY TELEPHONE OF THEIR INTENDED DEPARTURE BEFORE LEAVING FEDERAL OR STATE WATERS TO LAND FISH OUTSIDE ALASKA (Proposed Action).

COSTS

Costs associated with this proposed action are those that would be incurred by fishermen in terms of time and money in complying with this action. In 1982, only five fishermen landed Alaska caught fish outside Alaska. Four of these vessels fished in Southeast Alaska, including State waters,and one fished in the Western Regulatory Area.

Fishermen fishing in Southeast Alaska or fishing the more westward areas are likely to purchase food and fuel at Alaska ports before traveling south to Seattle or other outside ports. These fishermen who normally stop over may take the time to complete a fish ticket or telephone management agencies that they are departing the Alaska waters to land fish outside Alaska.

Fishermen are not expected to travel to an Alaskan port for the sole purpose of notifying management agencies. These fishermen are expected to notify management agencies that they are departing Alaskan waters by ship-to-shore radio. The only costs incurred by them is their time and nominal charge to call the marine operator, contact a management agency, and notify an agency representative of their departure.

BENEFITS

Agencies bearing responsibility for the management of Alaska commercial groundfish fisheries would be better able to make timely management decisions based upon the best available data. Instead of depending on catch figures that may be months old, management agencies should be able to make use of catch figures just over 7 days old.

In part, these data are used to determine whether amounts specified as DAP and JVP should be supplemented from the reserves. These data are also used to promote full utilization of the stocks over the long term by managing them to avoid economic or biological overfishing.

Based on poundage fees per metric ton charged foreign nations (Table 4) or potential exvessel values (Table 8, the total value of each species optimum yield, if all were harvested, could be between $15.4 million and $324.4 million. To the extent that timely catch reports would result in successful management of groundfish stocks, this proposed action could contribute to an annual value between the above range.

(Alternative 1) MAINTAIN EXISTING REPORTING REQUIREMENTS FOR LANDING ALASKA CAUGHT FISH OUTSIDE OF ALASKA.

COSTS

Under this alternative, economic and biological overfishing, especially of small concentrated stocks, become more likely because catch reports may be received too late to be taken into account during decision-making processes. To the extent that it contributes to mismanagement, late reporting is a cost under this alternative.

BENEFITS

No benefits are identified with this alternative.

V. CONCLUSIONS

A. Increasing the pollock OY to 143,000 mt is superior to increasing it to 191,000 mt or maintaining it at its current level of 95,200 mt. Exvessel revenues to about 25 U.S. fishermen (vessel operators) participating in joint ventures in 1983 could be about $11 million, or about $440,000 per vessel operator, which exceeds the loss to the U.S. government in foreign fees not received of between $158,000 and $1 million. Although revenues accruing to

domestic operations or joint ventures under alternative 1 (OY = 191,000) could be as much as $164 million or $77 million, respectively, the costs due to possible overfishing are too high. Overfishing could impede the ability of the pollock resource to maintain a yield of 143,000 mt which, if harvested in wholly domestic operations, could be worth about $126 million. Under Alternative 2 (OY = 95,200 mt), possible revenues accruing to joint ventures would be short by about $1 million. Loss in foreign fees, if foreign nations were to not fish at all in the Central Regulatory Area, could be more than $3 million.

Catches of king and Tanner crab and salmon, retention of which is prohibited in the foreign fisheries, appear negligible under each alternative. Catches of Pacific halibut would be negligible under the proposed action or Alternative 2, but could reach about 900 mt under Alternative 1.

B. Reducing the sablefish OY to 7,730-8,980 mt in Federal waters is superior to maintaining it at its current level of 12,300 mt, although costs initially are greater than benefits. Losses in foreign fees could be about $481,690 and possible reductions in exvessel revenues in domestic operations and joint ventures could be about $4 million and $48,000, respectively. As stocks improve, however, and if catches were to return to the upper level of the MSY range, U.S. fishermen could receive about $47 million.

Under the alternative, which maintains the OY at its present level, stocks would not improve. Exvessel gross revenues that could have occurred as stocks increased toward MSY would be foregone.

C. Dividing the Yakutat district into two management districts for purposes of better managing sablefish is superior to maintaining it at a single management area. Although fishermen's operating costs would increase (e.g. by $400 and 33 hours per boat) as they travel farther to harvest sablefish, benefits of better management of sablefish stocks, which have a potential exvessel value of between $1.9 million and $3.5 million, exceed the costs.

Under the alternative to maintain the Yakutat district as a single area, the potential for overfishing local stocks increases, which is a cost to the extent that sablefish stocks as well as potential revenues would be adversely impacted.

D. Establishing a procedure that allows the Regional Director to apportion annually each groundfish species OY to the DAH components of DAP, JVP, and TALFF is superior to the present process if accomplishing the apportions by plan amendments. This measure facilitates planning by the U.S. fishing industry, which would benefit from certainty as to the availability of fish stocks, except as availability may be modified for inseason conservation reasons. The alternative to continue adjusting DAH components by plan amendments creates delays which increases uncertainty for the industry.

E. Requiring fishermen to notify management agencies of their intended departure before leaving Federal or State waters to land fish outside Alaska, in addition to the present requirement that they report those catches after landing them, is superior to the existing requirement that they just report the catches. The only costs incurred by these fishermen are their time and nominal charge to notify a management agency through the marine operator. Management decisions, including reserve apportionments and inseason time and area closures for conservation reasons, would be based on the best available information, which contributes to a fishery that has a potential exvessel value of between $15 million and $324.4 million.

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